ORDER NO. MD0503076C1
A1

Service Manual

AV Control Receiver

*DOLBY DIGITAL PRO LOGIC II **DIGITAL dts SURROUND

SA-HT17PP

Color

(S).....Silver Type

Specification

nAMPLIFIER SECTION

RMS output power of each channel driven

10 % total harmonic distortion

1 kHz front CH

170 W per channel (6 Ω)

1 kHz surround CH

70 W per channel (4 Ω)

1 kHz center CH

260 W per channel (4 Ω)

100 Hz subwoofer CH

260 W per channel (4 Ω)

Total RMS output power 1000 W

Rated minimum sine wave RMS power output

1% total harmonic distortion (Dolby Digital mode)

120 Hz-20 kHz front CH

100 W per channel (6 Ω)

120 Hz-20 kHz surround CH

45 W per channel (4 Ω)

120 Hz-20 kHz center CH

140 W per channel (4 Ω)

45 Hz-120 Hz subwoofer CH

150 W per channel (4 Ω)

Total FTC output power 580 W

Rated minimum sine wave RMS power output

1% total harmonic distortion (Stereo mode)

120 Hz-20 kHz front CH

90 W per channel (6 Ω)

45 Hz-120 Hz subwoofer CH

150 W per channel (4 Ω)

Total FTC output power 330 W

Total harmonic distortion

Half power at 1 kHz (Front CH) 0.1% (6 Ω)

Input sensitivity

DVD, DVR/VCR, TV, GAME/AUX 400 mV, IHF'66

S/N (IHF A)

DVD, DVR/VCR, TV, GAME/AUX 75 dB (85 dB, IHF'66)

Input impedance

DVD, DVR/VCR, TV, GAME/AUX 47 kΩ

Tone controls

BASS 50 Hz, +10 to -10 dB

TREBLE 20 kHz, +10 to -10 dB

Digital input

OPTICAL 2

COAXIAL 1

nVIDEO SECTION

Output voltage at 1 V input (unbalanced) 1±0.1 Vp-p

Maximum input voltage 1.5 Vp-p

Input/output impedance 75Ω

nFM TUNER SECTION

Frequency range 87.9-107.9 MHz

Sensitivity 11.2 dBf (2 µV, IHF'58)

50 dB quieting sensitivity

MONO

18.3 dBf (4.5 µV, IHF'58)

STEREO

38.3 dBf (45 µV, IHF'58)

Total harmonic distortion

MONO 0.2%

STEREO 0.3%

S/N

Panasonic

© 2005 Matsushita Electric Industrial Co. Ltd.. All rights reserved. Unauthorized copying and distribution is a violation of law.

MONO	71 dB
STEREO	65 dB
Frequency response	
	20 Hz-15 kHz, +1 dB, -2dB
Image rejection at 98 MHz	40 dB
Stereo separation	
1 kHz	40 dB
Antenna terminal	75 Ω (unbalanced)
nAM TUNER SECTION	
Frequency range	530-1710 kHz
Sensitivity	450 µV/m
Selectivity	20 dB
nGENERAL	
Power supply	AC 120 V, 60Hz
Power consumption	
(Main unit)	25 W
(Subwoofer)	390 W
Power consumption in standby mode:	1 W
Dimensions (W × H × D) (Main unit)	430 × 63 × 260 mm
	(16-15/16" x 2-15/32" x 10-1/4")
Mass (Main unit)	1.9 kg (4.2 lb.)

nSYSTEM

System: SC-HT17 (PP)

Main unit: SA-HT17 (PP)

Satellite Speaker: SB-HT17 (P)

Active Subwoofer: SB-WA17 (PP)

Speaker: SB-HT17 (P)

Front speakers: SB-FS930 (P-S1) x 2

Surround speakers: SB-FS880 (EG-S1) x 2

Center speaker: SB-PC930 (P-S1) x 1

Notes:

1. Specifications are subject to change without notice. Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

For main unit

Marking sign is located on bottom of the unit.

* Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

** Manufactured under license from Digital Theater System. "DTS" and "DTS Digital Surround" are trademarks of Digital Theater System.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

CONTENTS

Page

1 Use of Active Subwoofer ---- 4
1.1. Checking Player when Active Subwoofer is Used ---- 4
1.2. Checking Main Unit Using Power Jig ---- 4
2 Before Repair and Adjustment (Using Active Subwoofer Unit) ---- 5
3 Safety Precautions ---- 5
3.1. GENERAL GUIDELINES ---- 5
4 Handling the Lead Solder ---- 6
4.1. About lead free solder (PbF) ---- 6
5 About the Protection Circuitry ---- 6
6 Accessories ---- 7
7 Operation Procedures ---- 8
8 Remote Control ---- 9
9 Assembling and disassembling ---- 10
9.1. Disassembly flow chart ---- 10
9.2. P.C.B. Positions ---- 11
9.3. Disassembly of Top Cabinet ---- 12
9.4. Disassembly of Rear Panel ---- 12
9.5. Disassembly of Front Panel ---- 12
9.6. Disassembly of Panel P.C.B. ---- 13
9.7. Disassembly of Function P.C.B. & Volume P.C.B. ---- 13
9.8. Disassembly of S-Video P.C.B. ---- 14
9.9. Disassembly of DSP P.C.B. ---- 14
9.10. Disassembly of Main P.C.B. ---- 15

Page

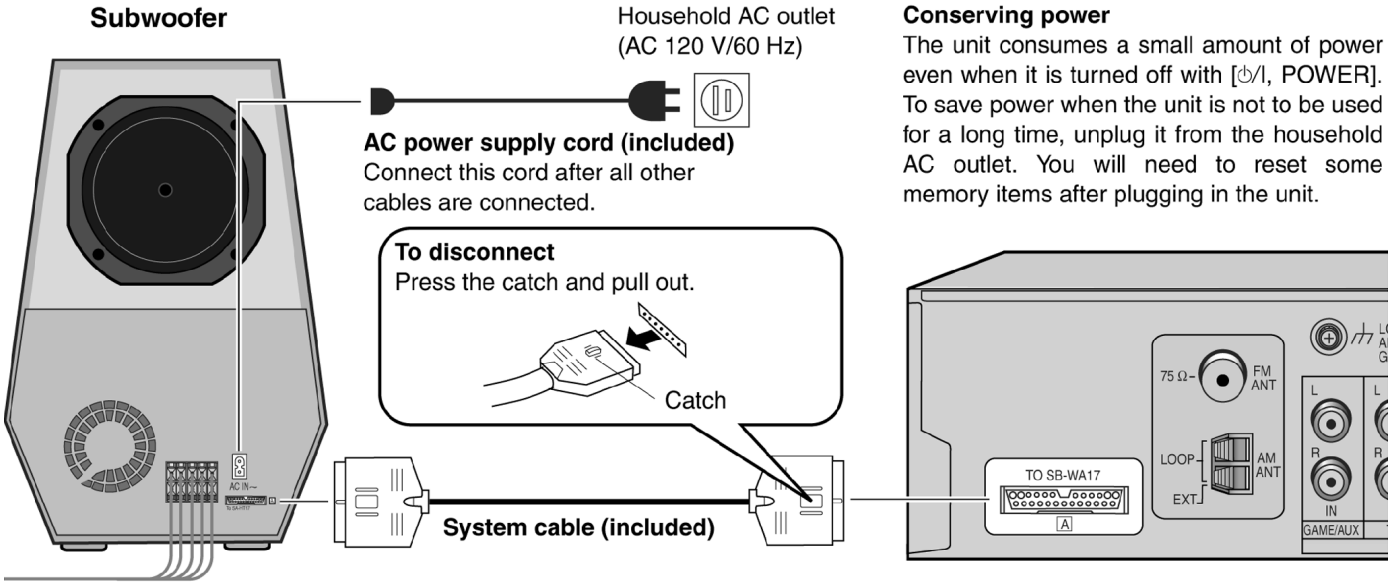
10 Service Position ---- 16
10.1. Checking the DSP P.C.B. (Side A) & S-Video P.C.B. ---- 16
10.2. Checking the Main P.C.B., Panel P.C.B., Function P.C.B., Volume P.C.B. & DSP P.C.B. (Side B) ---- 16
11 Self Diagnosis Display Function ---- 17
11.1. Automatically Displayed Error Codes ---- 17
11.2. Error Code Display Details ---- 17
11.3. Activating Self Diagnosis Function (Doctor Mode) ---- 17
11.4. Activating Self Diagnosis Function (Service Mode) ---- 18
11.5. The Shutdown And Short Circuit Protection Detection ---- 19
11.6. Returning to Normal Display ---- 20
12 Block Diagram ---- 21
13 Schematic Diagram ---- 27
13.1. (A) DSP Circuit ---- 28
13.2. (B) Main Circuit ---- 31
13.3. (C) Panel Circuit ---- 39
13.4. (D) Volume Circuit & (E) Function Circuit ---- 40
13.5. (F) S-Video Circuit ---- 41
14 Printed Circuit Board Diagram ---- 42
14.1. (A) DSP P.C.B. ---- 42
14.2. (B) Main P.C.B. ---- 44
14.3. (C) Panel P.C.B. & (D) Volume P.C.B. ---- 46
14.4. (E) Function P.C.B. & (F) S-Video P.C.B. ---- 48
15 Wiring Connection Diagram ---- 49

16 Type Illustration of ICs, Transistors and Diodes 51
17 Terminal Function of IC 52
17.1. IC900 (C2CBHG000166): Microprocessor 52
18 Parts Location and Replacement Parts List 53
18.1. Cabinet Parts Location 54
18.2. Electrical Parts List 57
18.3. Packing Materials & Accessories Parts List 64
18.4. Packaging 65

1 Use of Active Subwoofer

1.1. Checking Player when Active Subwoofer is Used

1. This unit uses the active subwoofer to supply the power of the component, and the active subwoofer should be connected to the component to check operational conditions of the component.

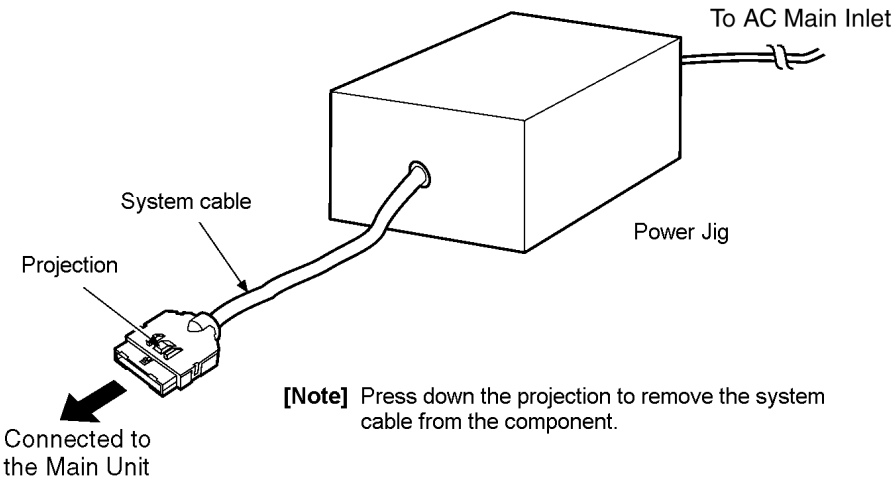


Conserving power

The unit consumes a small amount of power even when it is turned off with [⏻/I, POWER]. To save power when the unit is not to be used for a long time, unplug it from the household AC outlet. You will need to reset some memory items after plugging in the unit.

1.2. Checking Main Unit Using Power Jig

If the active subwoofer is not available during time of repair to the unit, the following equipment could be used.



[Note] Press down the projection to remove the system cable from the component.

Jig product number

RFKZ0182 (110V , 127V, 220V, 230V - 240V for with voltage selector overseas domestic use).

2 Before Repair and Adjustment (Using Active Subwoofer Unit)

Disconnect AC power, discharge Power Supply Capacitors C546, C547, C548 & C549 through a 10 Ω, 1W resistor to ground.

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

Current consumption at AC 120V, 60Hz in NO SIGNAL mode should be ~900 mA .

3 Safety Precautions

3.1. GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

3.1.1. LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2Ω.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

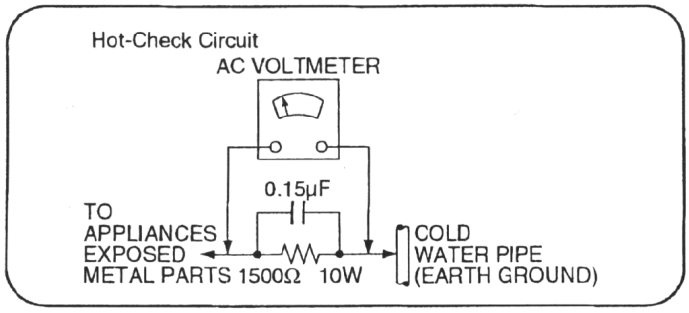


Fig. 1

3.1.2. LEAKAGE CURRENT HOT CHECK (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

4 Handling the Lead Solder

4.1. About lead free solder (PbF)

Distinction of PbF P.C.B. :

P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

Caution:

- Pb free solder has a higher melting point that standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

5 About the Protection Circuitry

The protection circuitry may have operated if either of the following conditions is noticed:

*No sound is heard when the power is supplied.

*Sound stops during a performance.

The functions of this circuitry is to prevent circuitry damage, for example, the positive and negative speaker connection wires are “shorted”, or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined below:

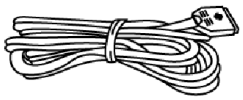
1. Press the STANDBY ⏻ /ON button, switch to STANDBY mode.
2. Determine the cause of the problem and correct it.
3. Press the STANDBY ⏻ /ON button once again, supply the power.

Note:

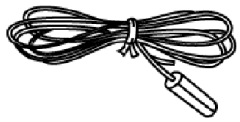
When the protection circuitry functions, the unit will not operate unless the STANDBY ⏻ /ON button is first switched STANDBY and then ON again.

6 Accessories

AC cord

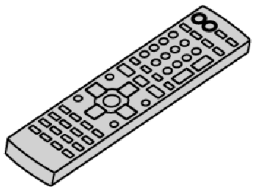


System cable



FM indoor antenna

AM loop antenna



Remote control transmitter

7 Operation Procedures

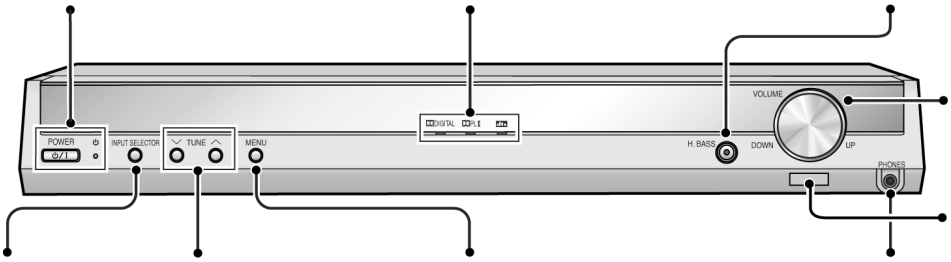
Main unit

Standby indicator [⏻]
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

[⏻/I, POWER]
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

[DD DIGITAL, DD PL II, dts]
Lights to indicate the source's input signal and decoding format used.
DD DIGITAL: Dolby Digital sources
DD PL II: Dolby Pro LogicII decoder is being used
dts: DTS sources

[H.BASS]
For enhancing the bass sound.
The indicator lights when the feature is on.



[VOLUME]
Volume control.

Remote control signal sensor

[INPUT SELECTOR]
For selecting input.
The display changes as follows:

TUNER → DVD → TV
↑ ↓
GAME/AUX ← DVR/VCR

[∨ TUNE ∧]
For tuning the radio and presetting channels.

[MENU]
- For entering various settings.
- Press and hold to exit the MENU mode.

[PHONES]
Headphone jack
Plug type: 3.5 mm (1/8") stereo
- Sound does not come from the speakers if you connect headphones.
- Avoid listening for prolonged periods of time to prevent hearing damage.

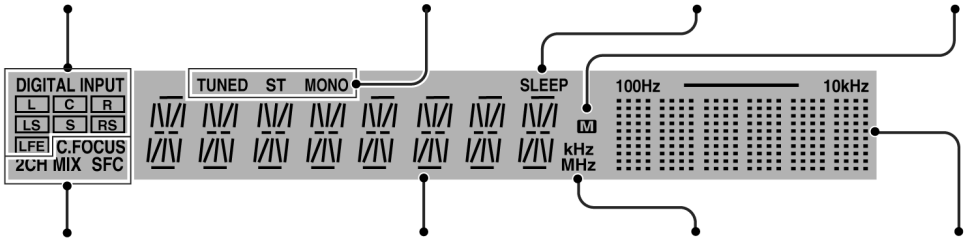
Display

[DIGITAL INPUT]
Program format indicators
Show the channels contained in the digital input signal.
They do not light when input is analog.
L: Front left channel
C: Center channel
R: Front right channel
LS: Surround left channel
S: If the surround channel is monaural.
RS: Surround right channel
LFE (Low Frequency Effects)**:** Deep-bass effect.

[TUNED, ST, MONO]
Radio indicators
TUNED: A station is tuned.
ST: A stereo FM broadcast is tuned.
MONO: You have switched to monaural mode to improve reception.

[SLEEP]
Sleep timer indicator.

[M]
Flashes or lights during presetting.



[C.FOCUS, 2CH MIX, SFC]
C.FOCUS: Appears when you are using Center Focus
2CH MIX: Appears when you are listening to a multi-channel source with headphones
SFC: Appears when you are using an SFC mode

General display
Shows the input mode, radio frequency and other general information.

[kHz, MHz]
Frequency unit indicators
kHz: AM, or PCM sampling frequency
MHz: FM

Spectrum analyzer display

8 Remote Control

Remote control

This page describes the buttons used to control this unit.

[⏻, RECEIVER]
Standby/on button.

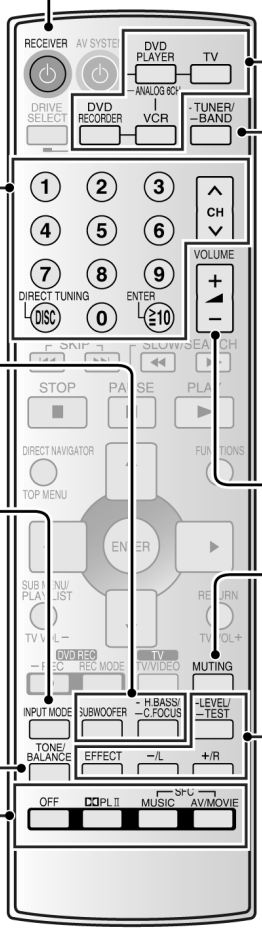
[1, 2, 3, 4, 5, 6, 7, 8, 9, 0]
To enter radio frequencies and channels.
[≧ 10, ENTER]
To enter two digit channels.
[DISC, DIRECT TUNING]
To enable selection of radio stations by frequency.
[∧, CH, ∨]
For selecting preset radio channels.

[SUBWOOFER]
For selecting subwoofer level.
[-H.BASS/–C.FOCUS]
- For enhancing the bass sound.
- Press and hold to select center focus mode.

[INPUT MODE]
For selecting AUTO, ANALOG or DIGITAL.

[TONE/BALANCE]
To adjust the bass, treble and front speaker balance.

[OFF]
To cancel surround effect.
[◻◻ PL II]
For selecting a Dolby Pro Logic II mode: MOVIE, MUSIC or PANORAMA.
[MUSIC]
For selecting SFC modes: LIVE, POP/ROCK, VOCAL, JAZZ, DANCE or PARTY.
[AV/MOVIE]
For selecting SFC modes: DRAMA, ACTION, SPORTS, MUSICAL, GAME or MONO.



[DVD PLAYER, –ANALOG 6CH] [TV] [DVD RECORDER] [VCR]

[DVD PLAYER, –ANALOG 6CH]
Press and hold and DVD input switches between 6-channel and 2-channel.

[-TUNER/–BAND]
For selecting TUNER.
After selecting TUNER, press and hold to switch between FM and AM.

[+, –, VOLUME]
To adjust the volume.

[MUTING]
To mute the volume.

[-LEVEL/–TEST]
- Use when adjusting speaker level.
- Press and hold to start the speaker test signal.

[EFFECT]
Use when adjusting Dolby Pro Logic II or SFC effects.
[–/L, +/R]
First select EFFECT, LEVEL, TONE or BALANCE, then press [–/L] or [+/R] to adjust.

9 Assembling and disassembling

“ATTENTION SERVICER”

Some chassis components may have sharp edges.

Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.

   Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.

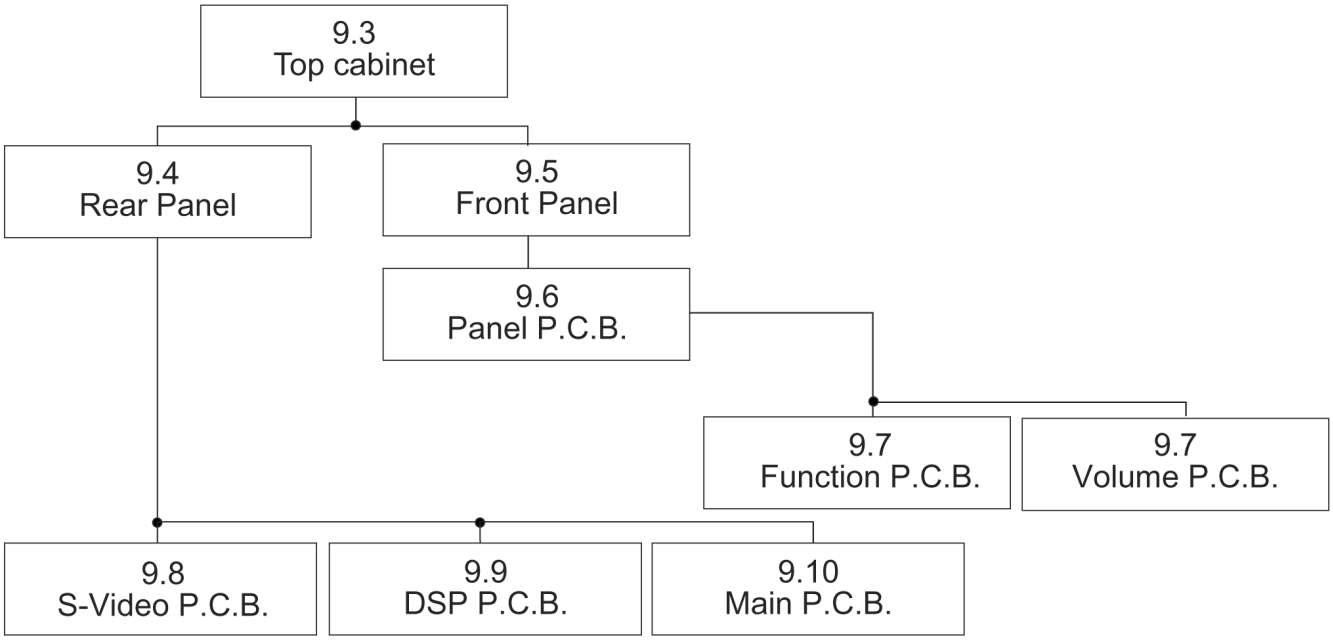
Warning:

This product uses a laser diode. Refer to caution statement Precaution of Laser Diode.

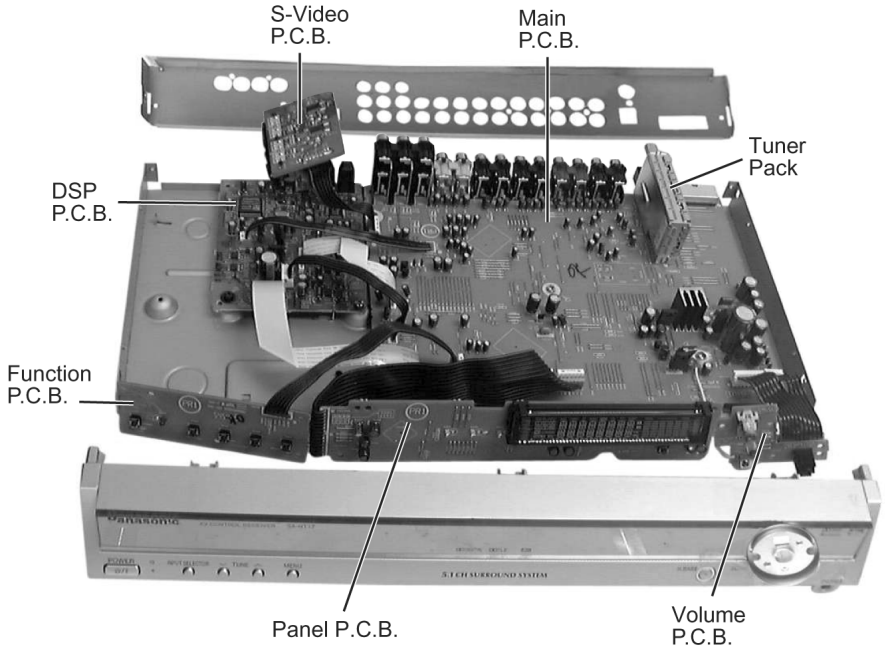
9.1. Disassembly flow chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

To assemble the unit, reverse the steps shown in the chart as below.



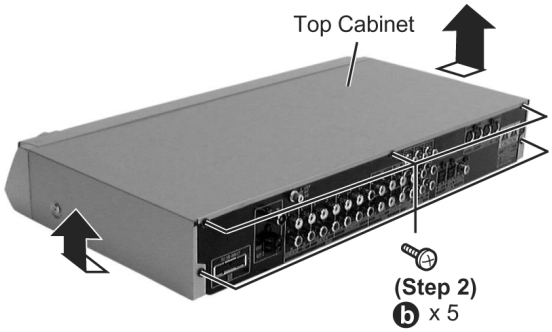
9.2. P.C.B. Positions



9.3. Disassembly of Top Cabinet

Step 1: Remove 2 screws.

Step 2 : Remove 5 screws at rear panel.

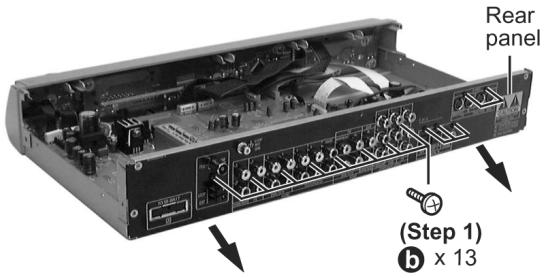


Step 3 : Open and lift up the top cabinet in the direction of arrow shown.

9.4. Disassembly of Rear Panel

・Follow the **(Step 1)** - **(Step 3)** of item 9.3 - Disassembly of Top Cabinet

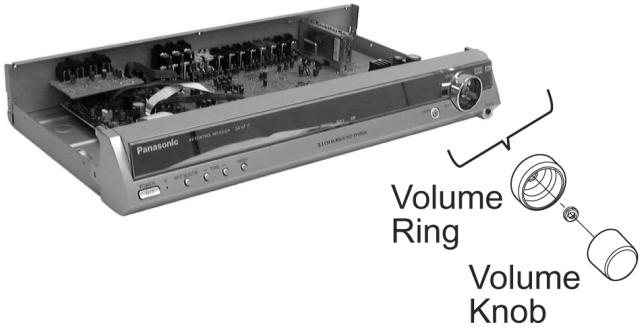
Step 1 : Remove 13 screws, pull rear panel forward in the arrow shown.



9.5. Disassembly of Front Panel

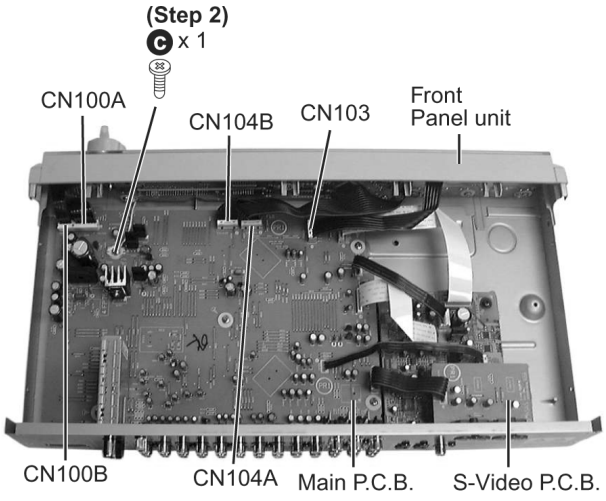
・Follow the **(Step 1)** - **(Step 3)** of item 9.3 - Disassembly of Top Cabinet

Step 1 : Remove the volume knob.

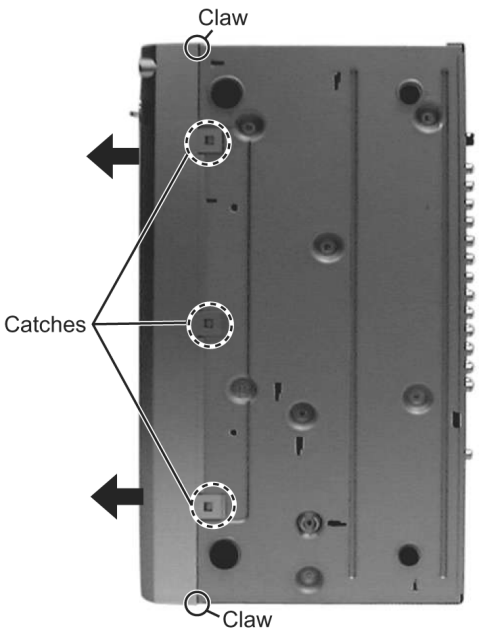


Step 2 : Remove 1 screw securing the grounding at Main P.C.B..

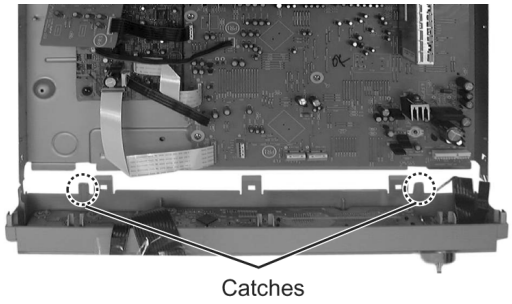
Step 3 : Detach wire connectors (CN103, CN104A, CN104B, CN100A & CN100B).



Step 4 : Release the claws & catches and push the front panel as arrow shown.



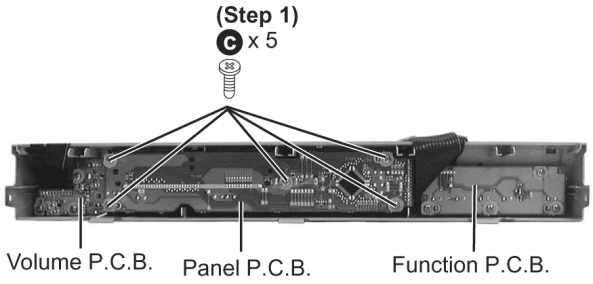
NOTE: When assembling the front panel unit, align the 2 catches properly.



9.6. Disassembly of Panel P.C.B.

- Follow the **(Step 1)** - **(Step 3)** of item 9.3 - Disassembly of Top Cabinet
- Follow the **(Step 1) - (Step 4)** of item 9.5 - Disassembly of Front Panel

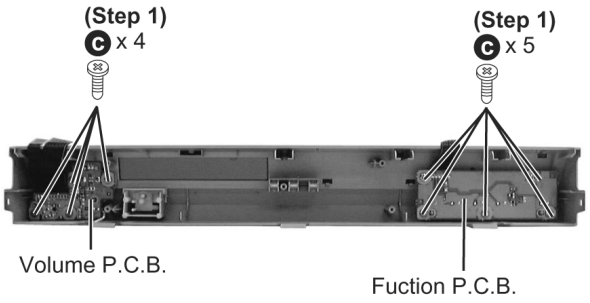
Step 1 : Remove 5 screws at Panel P.C.B.



9.7. Disassembly of Function P.C.B. & Volume P.C.B.

- Follow the **(Step 1)** - **(Step 3)** of item 9.3 - Disassembly of Top Cabinet
- Follow the **(Step 1) - (Step 4)** of item 9.5 - Disassembly of Front Panel
- Follow the **(Step 1)** of item 9.6 - Disassembly of Panel P.C.B.

Step 1 : Remove 5 screws at Function P.C.B. and 4 screws at Volume P.C.B.

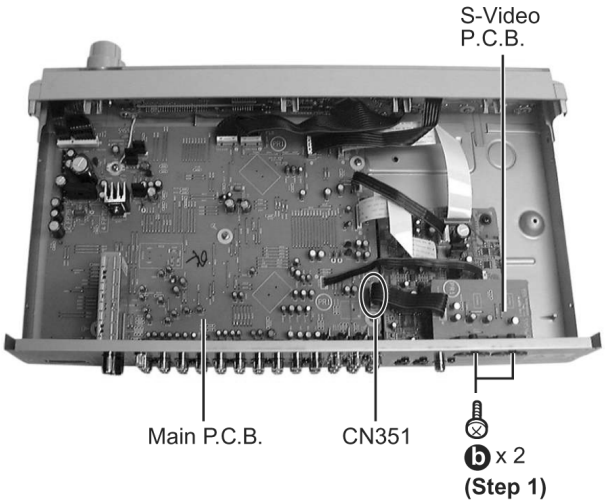


9.8. Disassembly of S-Video P.C.B.

・Follow the **(Step 1)** - **(Step 3)** of item 9.3 - Disassembly of Top Cabinet

Step 1 : Remove 2 screws at rear panel.

Step 2 : Disconnect connector CN351 at Main P.C.B.

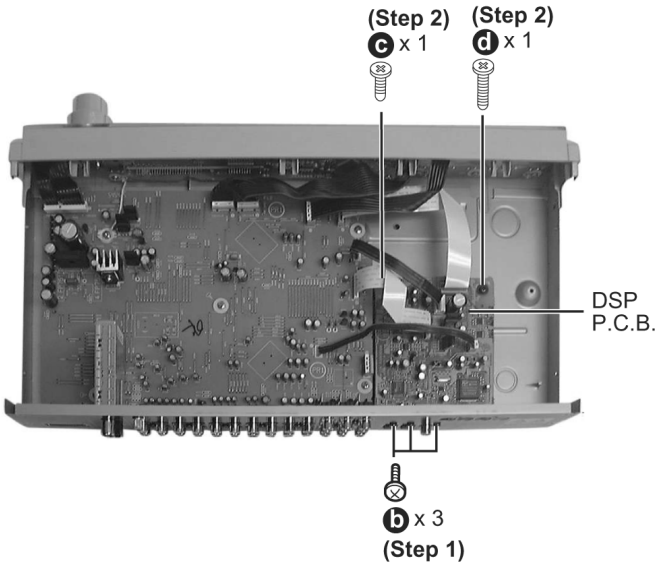


9.9. Disassembly of DSP P.C.B.

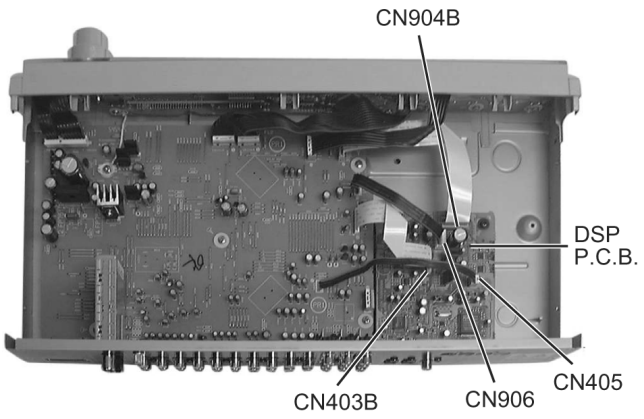
・Follow the **(Step 1)** - **(Step 3)** of item 9.3 - Disassembly of Top Cabinet

Step 1 : Remove 3 screws at rear panel.

Step 2 : Remove 2 screws at DSP P.C.B..



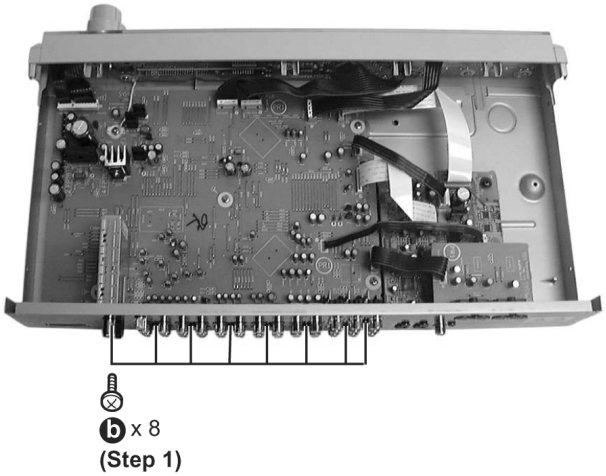
Step 3 : Disconnect 4 connectors, CN904B, CN405, CN906 & CN403B at DSP P.C.B.



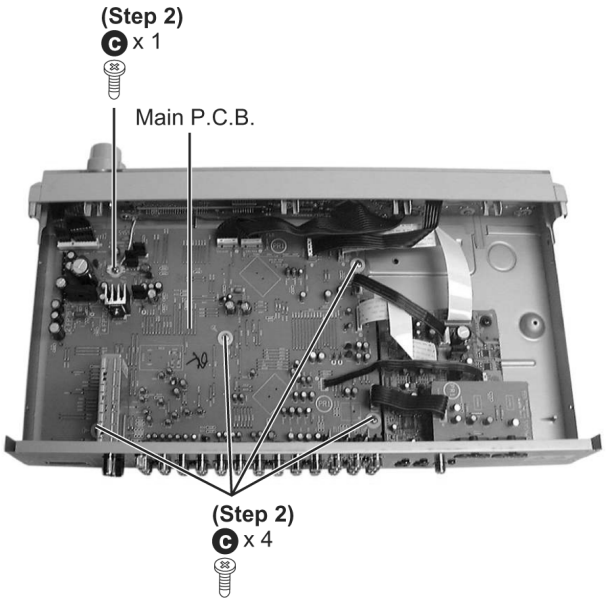
9.10. Disassembly of Main P.C.B.

・Follow the **(Step 1)** - **(Step 3)** of item 9.3 - Disassembly of Top Cabinet

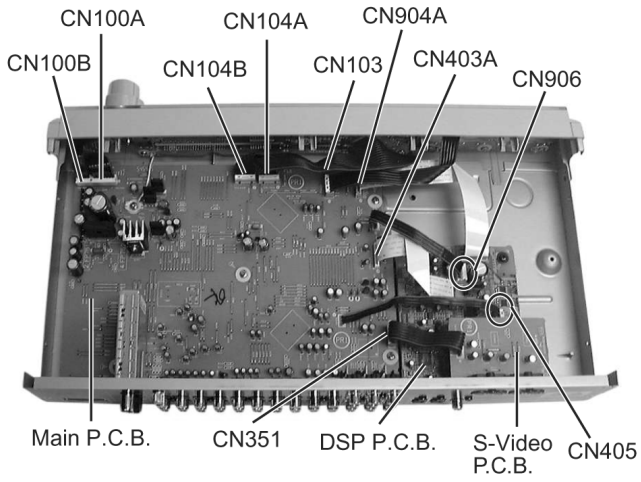
Step 1 : Remove 8 screws at rear panel.



Step 2 : Remove 5 screws at Main P.C.B.



Step 3 : Remove 8 connectors at Main P.C.B. (CN100B, CN100A, CN104B, CN104A, CN103, CN904A, CN403A & CN351) & 2 connectors at DSP P.C.B. (CN906 & CN405).



10 Service Position

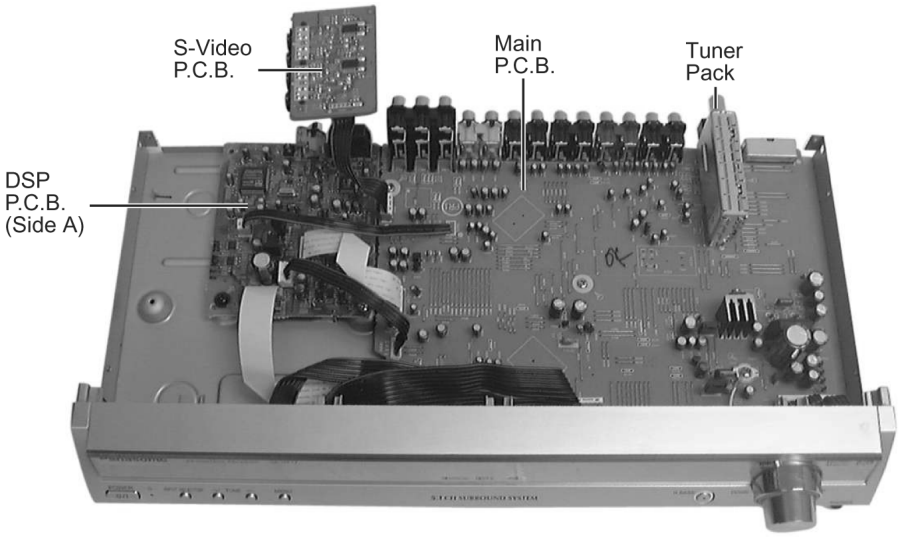
Note:

Checking of all Major P.C.B. (S-Video P.C.B, Main P.C.B., DSP P.C.B., Volume P.C.B., Panel P.C.B. & Fuction P.C.B.) can be carried out using below procedures.

For the disassembling procedure, see Section 9.

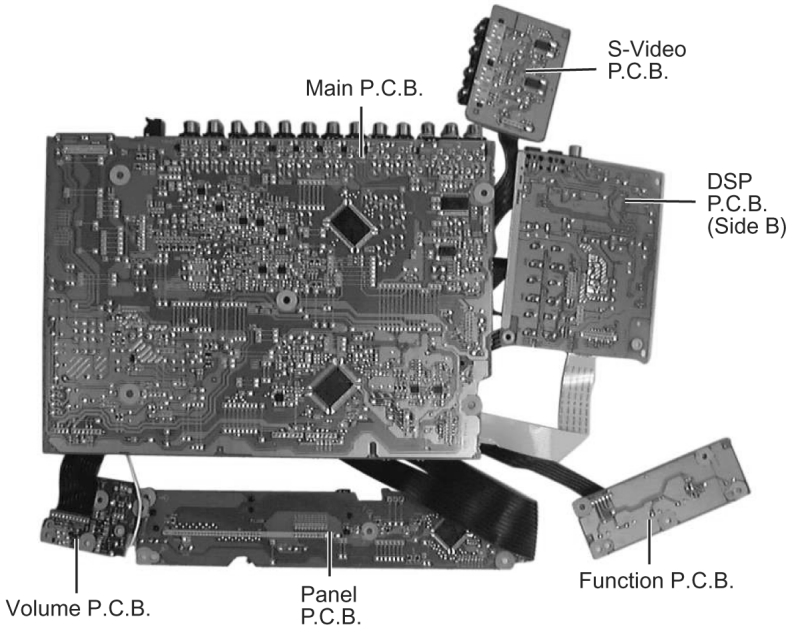
10.1. Checking the DSP P.C.B. (Side A) & S-Video P.C.B.

1. Remove Top Cabinet.
2. Remove Rear Panel.
3. Disassembly of S-Video P.C.B..



10.2. Checking the Main P.C.B., Panel P.C.B., Function P.C.B., Volume P.C.B. & DSP P.C.B. (Side B)

1. Remove Top Cabinet.
2. Remove Rear Panel.
3. Disassembly of Front Panel.
4. Disassembly of Panel P.C.B., Function P.C.B., Volume P.C.B., S-Video P.C.B., Main P.C.B. & DSP P.C.B..
5. Flip the PCBs over (see as shown in picture below).

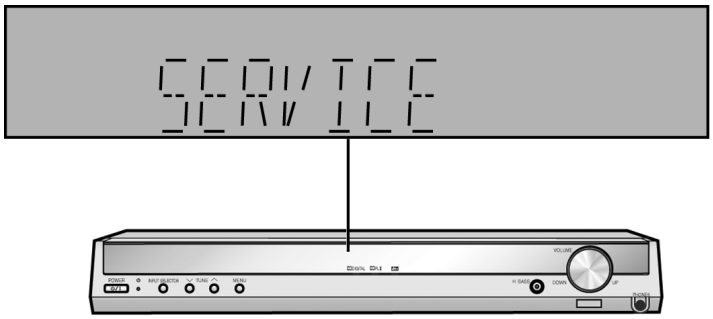


11 Self Diagnosis Display Function

This unit is equipped with the self diagnosis display function, which alarms faulty operation with error code. Use this function during servicing.

11.1. Automatically Displayed Error Codes

An error code automatically appears on the display (FXX) when faulty operation is detected. Refer to Fig. 11.1. For error codes, refer to Section 11.2.



<Fig.11.1>

11.2. Error Code Display Details

Refer to the following table for error codes.

FL Display	Symptom	Cause and Remedy
OVERLOAD	Speaker short, amplifier failure.	Speaker short and failure in power amplifier, pre-amplifier circuits. Check for faulty parts and replace with new parts if necessary.
	Humidity protection activated.	
FAN LOCK	The fan stops suddenly.	Failure in fan or fan control circuits. Check for faulty parts and replace with new parts if necessary.
F70	Communication error between sub micro processor and its peripheral LSI	Failure sub-micro processor and its peripherals LSI. Check for faulty aprts and replace with new parts if necessary.
F76	When the power is turned on, the unit power autimatically turns off, the power cannot be turned on.	Failure in the power circuit system of the unit. This may happen when the direct current electricity is supplied to speaker terminals. Check for the above and replace with new parts if necessary.

11.3. Activating Self Diagnosis Function (Doctor Mode)

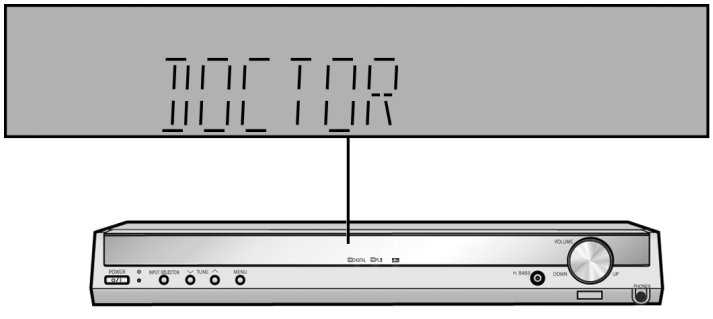
This mode can be used during servicing.

1. With the following operation, the processing of this mode begins.
   - Press and hold down the “INPUT SELECTOR” button and the “HARMONIC BASS” button, and then press the “POWER” button at the same time.

     * At this time, initialize all setting and set the following frequency to Tuner. FL display will display “_DOCTOR_” for 3 seconds.

     E1: 99.7 MHz, E2/3: 93.40 MHz, JAPAN: 87.8 MHz

     * The display is always blinked with 1Hz cycle to indicate that DOCTOR MODE is activated.



2. Normal function for all buttons on the unit.
3. Doctor mode function at some remote control codes as table below.

Remote Control	Test Mode Function and settings			
	Selector	Sound Mode	Other setting	Vol/Tone
CH 1	TUNER	STEREO	Frequency : FM min. *1)	-48dB/0dB
CH 2	TUNER	STEREO	Frequency : FM max.	-48dB/0dB
CH 3	TUNER	STEREO	FM 98.3 MHz.	-18dB/0dB
CH 4	TUNER	STEREO	Frequency : AM min.	-48dB/0dB
CH 5	TUNER	STEREO	Frequency : AM max.	-48dB/0dB
CH 6	TUNER	STEREO	AM 765 kHz (9kHz/step)	-18dB/0dB
CH 7	TUNER	STEREO	AM 770 kHz (10kHz/step)	-18dB/0dB
CH 8	If the input selector is TUNER, auto tuning function is started to upward on current frequency.			
CH 9	If the input selector is TUNER, auto tuning function is started to downward on current frequency.			
CH 0	All indicators of FL are displayed. All LED are off. Note: After this setting, only “POWER” button or “CHECKER COMMAND” code by the remote control can be entered.			
CH UP	Check Main uP software Version.			
CH DOWN	Display [SUM_****]; **** is checksum. If no ROM correction, display [NO_EPROM].			
SUBWOOFER	VCR (Analog)	----	-	-18dB/0dB
MUTING	DVD 6 CH	----	-	-18dB/0dB
INPUT MODE	GAME/ AUX	STEREO	Analog	-18dB/0dB
SLEEP	TV	STEREO	Analog	-18dB/0dB
TONE/BAL	DVD	STEREO	Analog	-18dB/0dB
LEVEL	DVR/VCR	STEREO	Analog	-18dB/0dB
EFFECT	DVD	STEREO	Digital (COAX)	-48dB/0dB
STEREO	TV	STEREO	Digital (OPT 1)	-48dB/0dB
PL2	DVR/VCR	STEREO	Digital (OPT 2)	-48dB/0dB
TEST	No change	SURROUND	Scan the test noise output channel with 500ms intervals.	-18dB/0dB
-/L	GAME/ AUX	STEREO	Balance is set to leftmost.	-18dB/0dB
+/R	GAME/ AUX	STEREO	Balance is set to rightmost.	-18dB/0dB
DIMMER	If the input selector is TUNER in E2 mode, Display mode (PS/PTY) is changed.			

* By the model setting, when there is not a function, ignore it. (ex. INPUT MODE in HT15 mode)
* Auto decode mode cannot activate in Doctor Mode.
*1) Memorize this frequency once in CH1 to 7 and recall it.

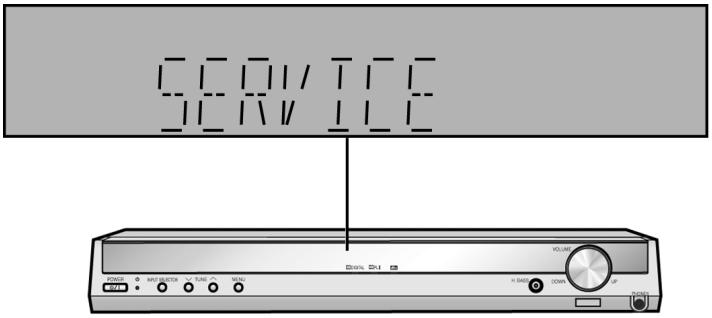
4. After enter the remote control code “DIRECT (TUNING)”, the message “OK” will appear for 0.2s second when each button is press one by one.
5. Press “POWER” button on main unit or remote control to exit this mode.

11.4. Activating Self Diagnosis Function (Service Mode)

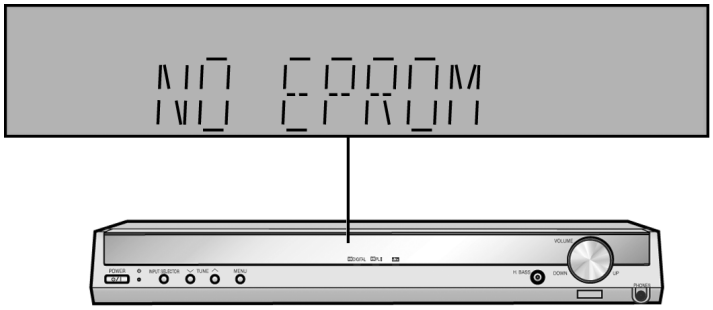
This mode is used for purpose of servicing.

1. With the following operation, the processing of this mode begins.
   ・Press and hold down the “HARMONIC BASS” button and the “TUNING DOWN” button, and then press the “POWER” button at the same time.

* At this time, initialize all setting and set the following frequency to Tuner. FL display will display “SERVICE” for 3 seconds.



2. To confirm the uP software Version: Press “TUNING DOWN” button on main unit, “MS085 **” is displayed.



3. When [TUNE UP] is pressed, display “SUM ****”, “****” is the check sum of ROM for ROM correction.
   If there is no EEPROM IC, “NO EPROM” is displayed.
4. Press “POWER” button on main unit or remote control to exit this mode.

11.5. The Shutdown And Short Circuit Protection Detection

It detects S_DET and DC_DET input port for malfunction.

1. S_DET Function (SHORT DETECTION)
   It is to detect a short in the Power Supply. The detection of S_DET starts after 700ms after POWER ON.
   After that, it is always detected for any malfunction.
   Upon detection, the FLD display “F76” and the system is POWER OFF by setting POWER_RELAY port to OFF.
2. DC_DET Function
   DC_DET (pin 94) on micon is used to detect FAN LOCK. During POWER ON, it will be ignored until ALL_MUTE is released.

A/D LEVEL	Voltage	DC_DET
↑93	> 1.81 V	OFF (Normal Condition)
↓92	< 1.80 V	ON (Fan Lock Condition)

   Upon detection, FLD display “FAN LOCK” and MUTE_ALL will be set to ON. If any button is pressed, it is made to scroll error message “SWITCH OFF POWER”. After Power Off and On,this condition is reset, and DC_DET will resume detection of error.
   It also sets MUTE_SW to ON, to switch OFF the power amplifier.
3. FREQUENCY LIMITER
   Due to surround speaker change from 6.5 cm to 8 cm. We have to limited certain output level to certain FOR FRONT L/R channel and SURROUND L/R cut off frequency in order to avoid speaker noise.
   4 ports are used for this purpose. 2 ports are used for front L/R channel, 2 ports for surround L/R channel.

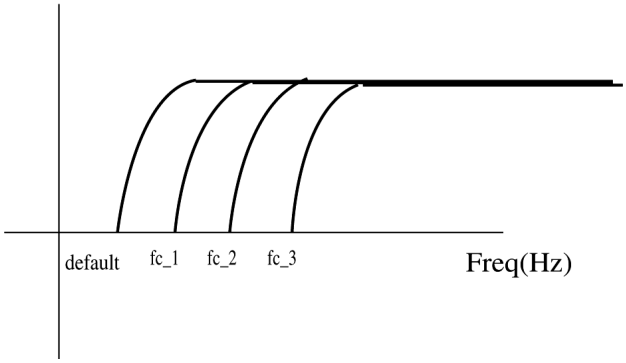
   Front Left/ Right Freq limiter (Port Name: FRONT_fc1[pin49], FRONT_fc2[pin50])
   Surround Left/ Right Freq limiter (Port Name: SURR_fc1[pin47], SURR_fc2[pin48])

   For FRONT L/R

Volume condition	Output FRONT_fc1	Output FRONT_fc2	Condition
-85dB ~ -9dB	L	L	Default fc
-8dB ~ -6dB	H	L	fc_1 =
-5dB ~ -3dB	L	H	fc_2 =
-2dB ~ 0dB	H	H	fc_3 =

   For SURROUND L/R

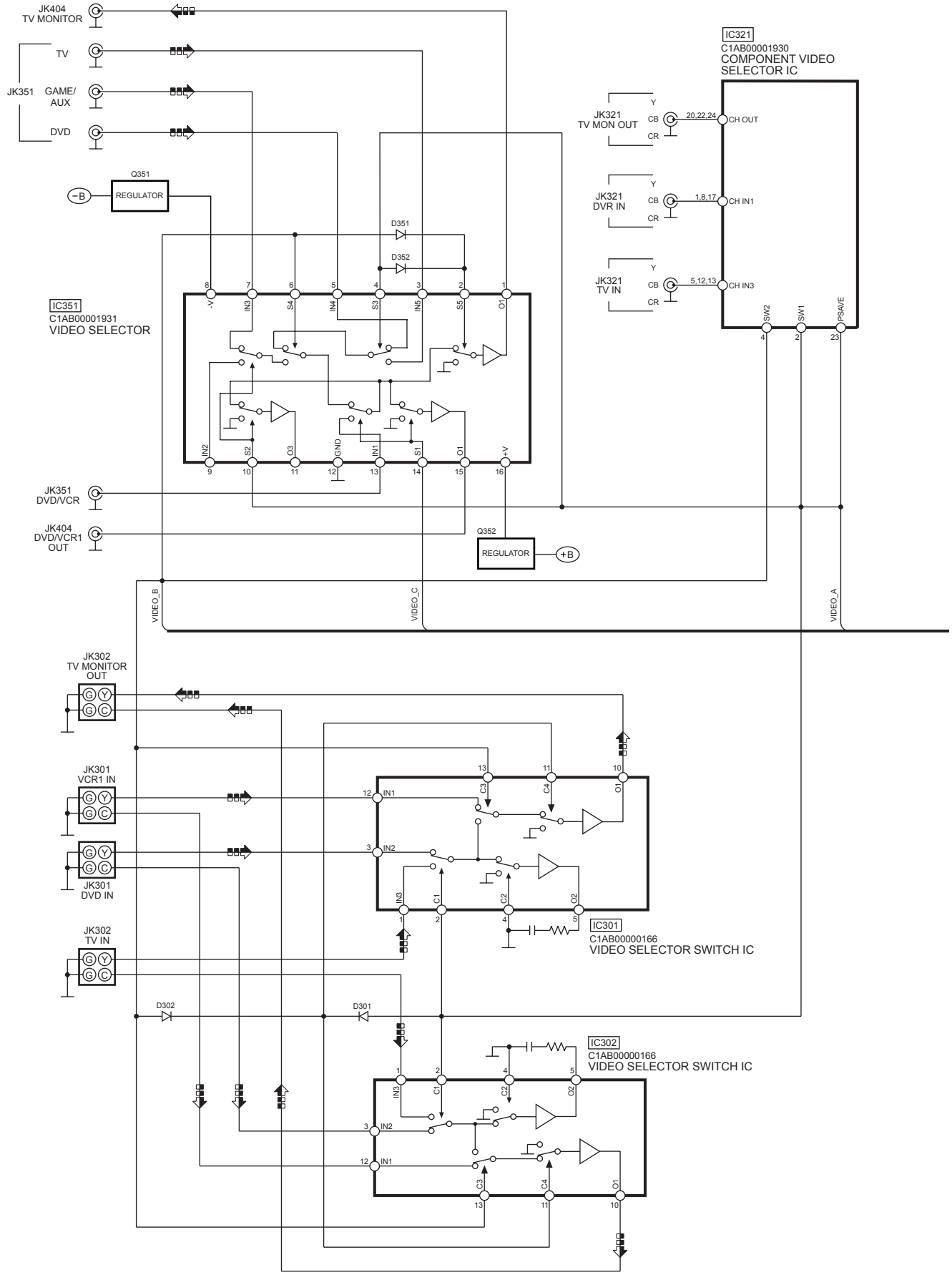
Volume condition	Output SURR_fc1	Output SURR_fc2	Condition
-85dB ~ -9dB	L	L	Default fc
-8dB ~ -6dB	H	L	fc_1 =
-5dB ~ -3dB	L	H	fc_2 =
-2dB ~ 0dB	H	H	fc_3 =

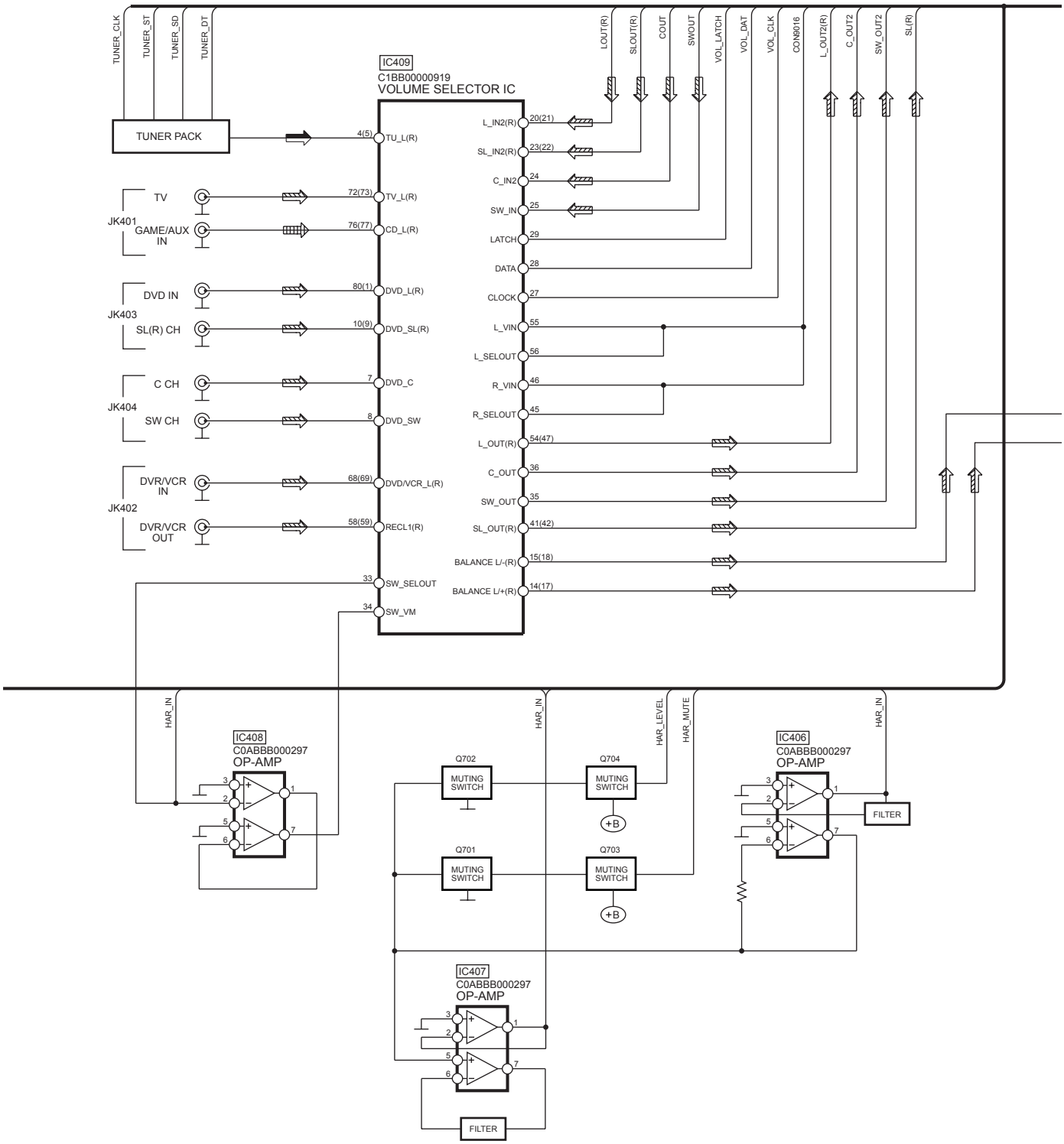


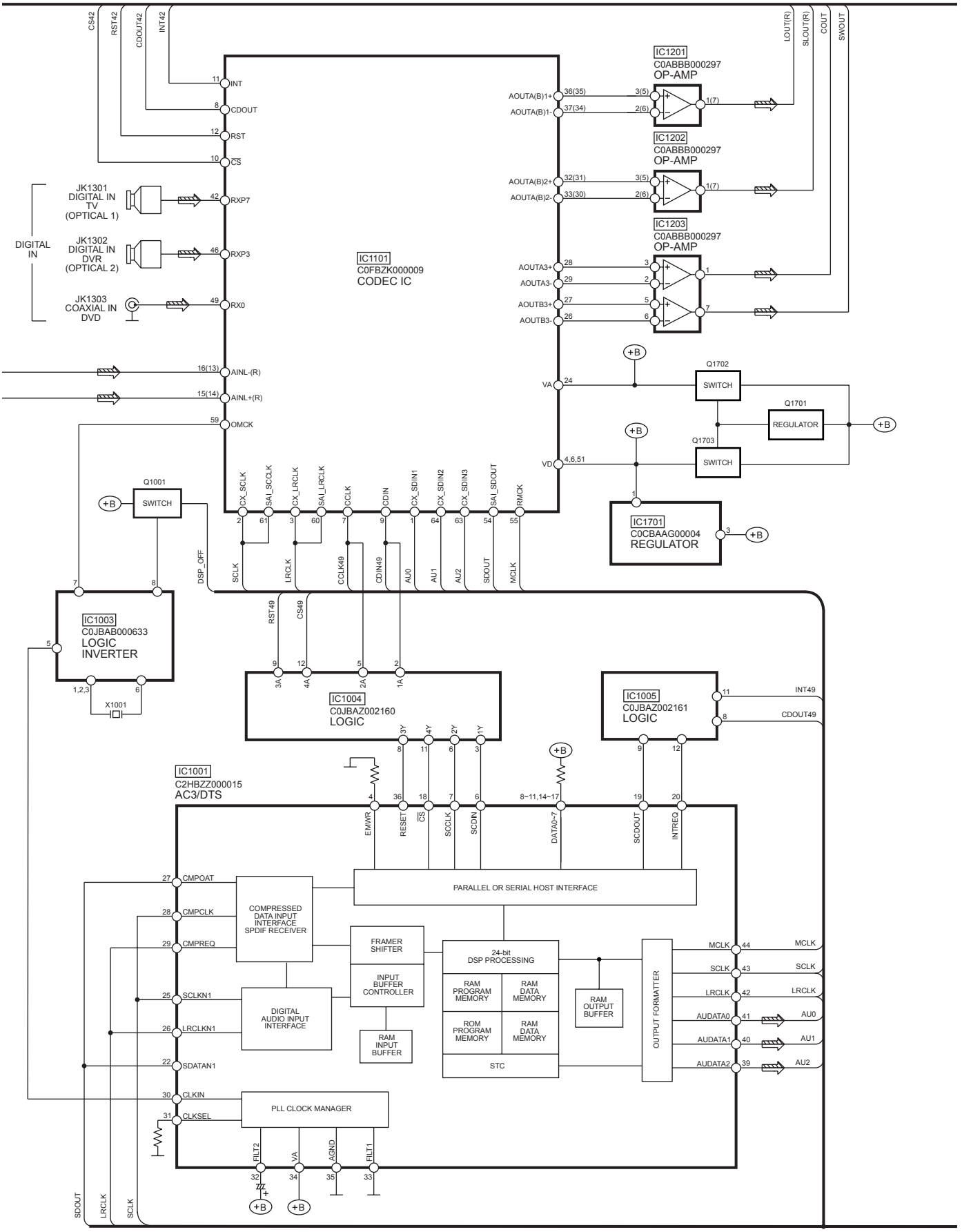
11.6. Returning to Normal Display

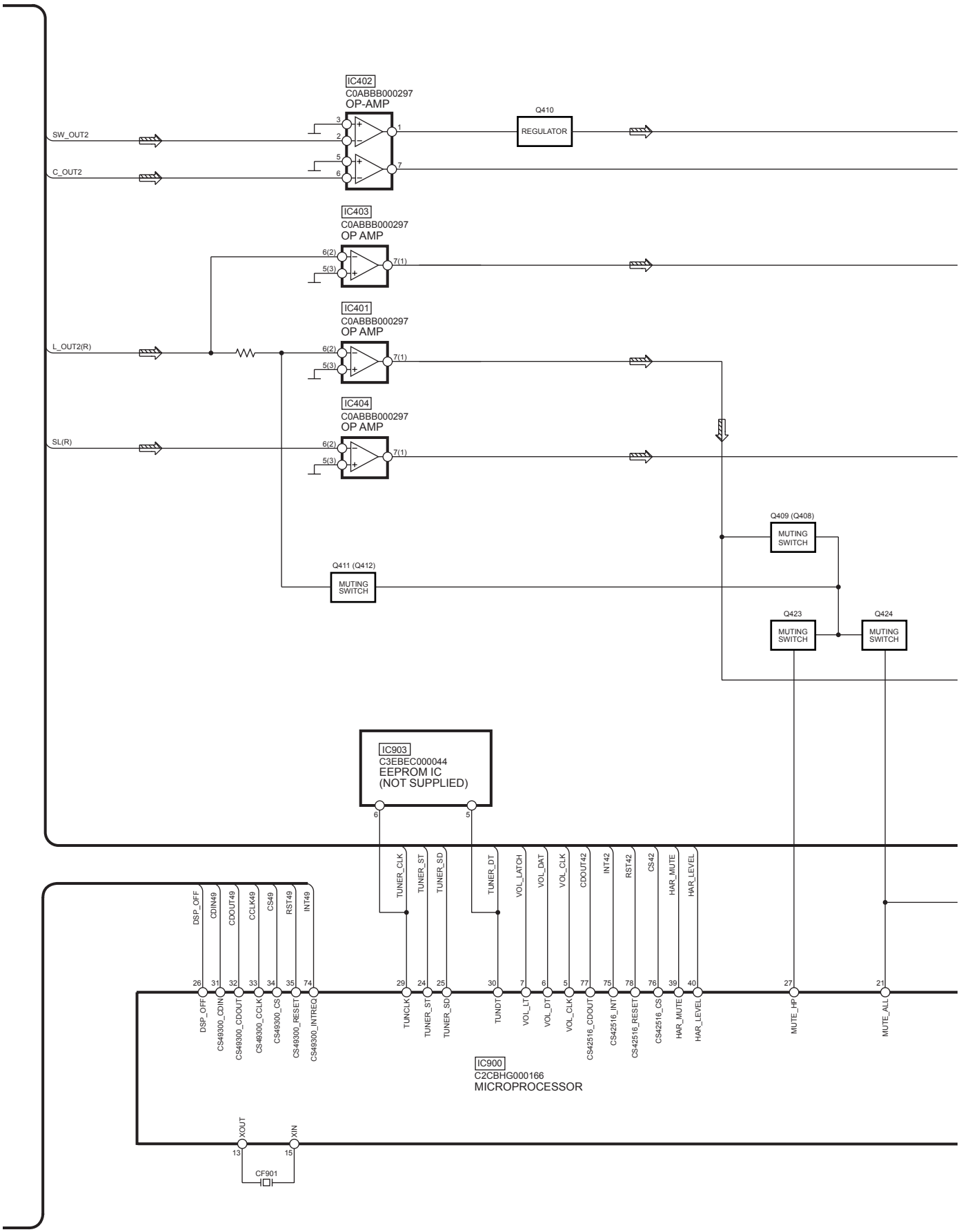
Press the POWER button on the unit to exit the function. The power is turned off.

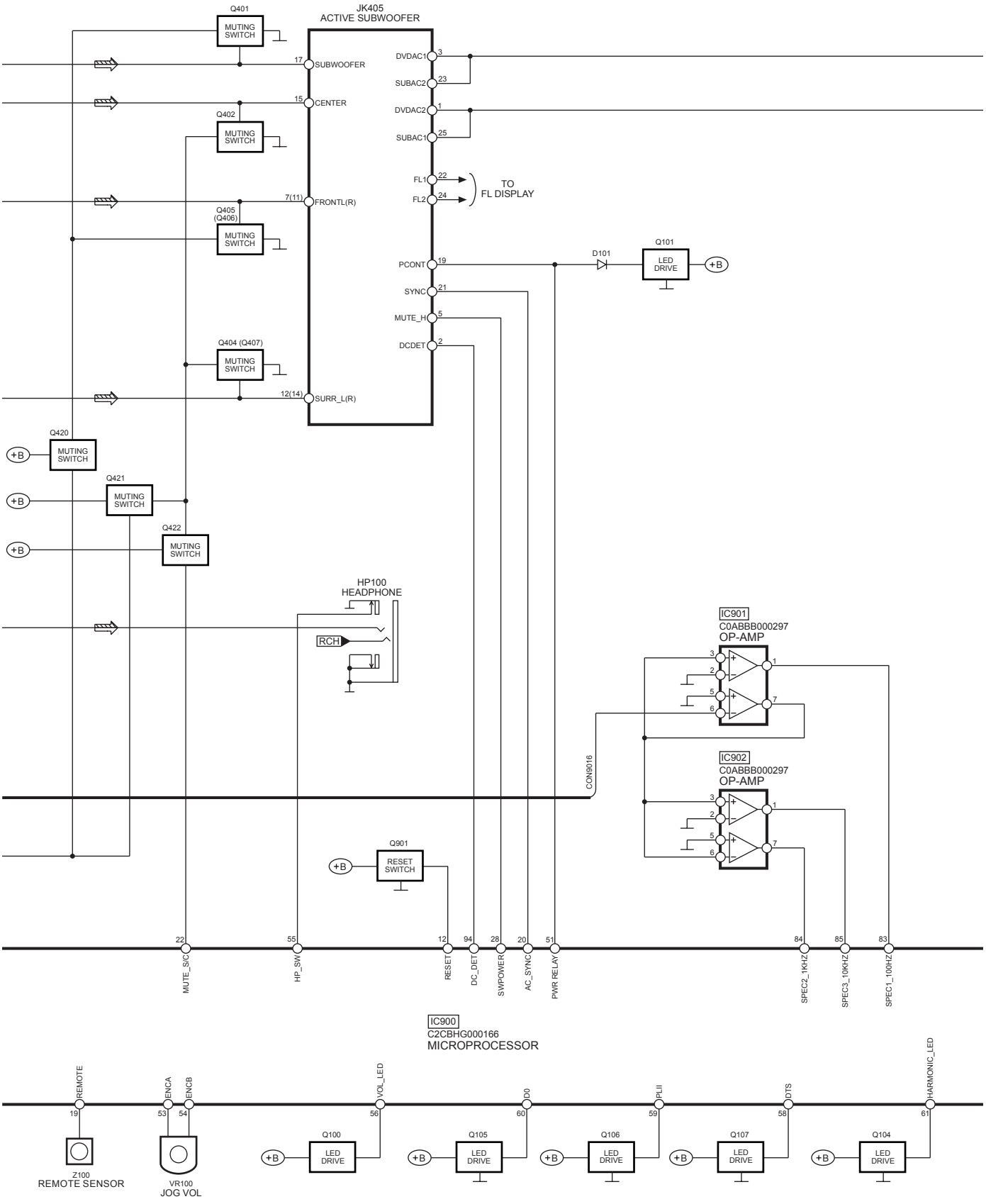
12 Block Diagram

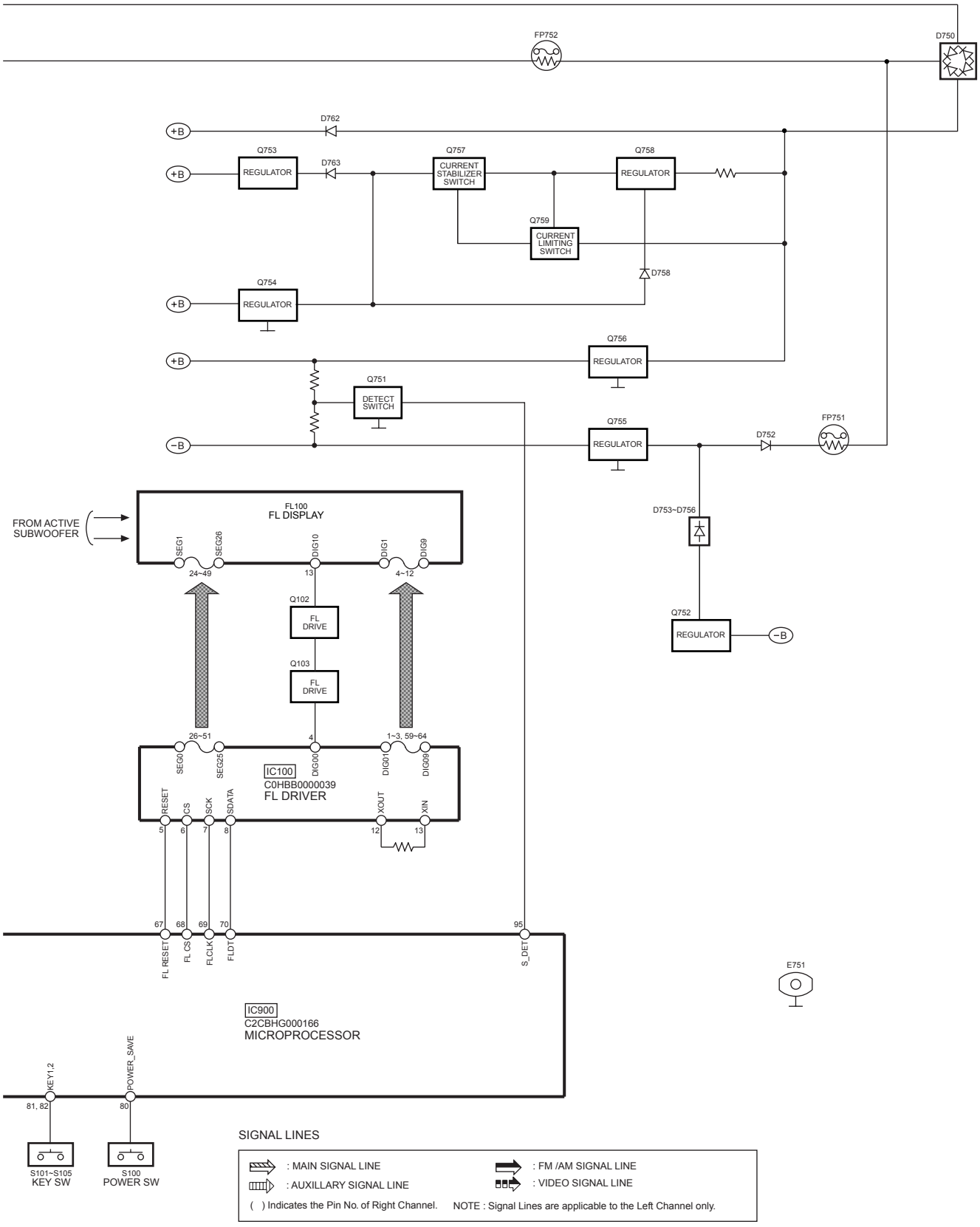



IC409
C1BB00000919
VOLUME SELECTOR IC
TUNER_CLK
TUNER_ST
TUNER_SD
TUNER_DT
TUNER PACK
TV
JK401
GAME/AUX IN
DVD IN
JK403
SL(R) CH
C CH
JK404
SW CH
DVR/VCR IN
JK402
DVR/VCR OUT
4(5) TU_L(R)
72(73) TV_L(R)
76(77) CD_L(R)
80(1) DVD_L(R)
10(9) DVD_SL(R)
7 DVD_C
8 DVD_SW
68(69) DVD/VCR_L(R)
58(59) RECL1(R)
33 SW_SELOUT
34 SW_VM
L_IN2(R) 20(21)
SL_IN2(R) 23(22)
C_IN2 24
SW_IN 25
LATCH 29
DATA 28
CLOCK 27
L_VIN 55
L_SELOUT 56
R_VIN 46
R_SELOUT 45
L_OUT(R) 54(47)
C_OUT 36
SW_OUT 35
SL_OUT(R) 41(42)
BALANCE L/-(R) 15(18)
BALANCE L/+(R) 14(17)
LOUT(R)
SLOUT(R)
COUT
SWOUT
VOL_LATCH
VOL_DAT
VOL_CLK
CON8016
L_OUT2(R)
C_OUT2
SW_OUT2
SL(R)
HAR_IN
IC408
C0ABBB000297
OP-AMP
HAR_IN
HAR_LEVEL
HAR_MUTE
Q702
MUTING SWITCH
Q704
MUTING SWITCH
+B
Q701
MUTING SWITCH
Q703
MUTING SWITCH
+B
HAR_IN
IC406
C0ABBB000297
OP-AMP
FILTER
IC407
C0ABBB000297
OP-AMP
FILTER


IC1101
C0FBZK000009
CODEC IC
IC1201
C0ABBB000297
OP-AMP
IC1202
C0ABBB000297
OP-AMP
IC1203
C0ABBB000297
OP-AMP
JK1301
DIGITAL IN
TV
(OPTICAL 1)
JK1302
DIGITAL IN
DVR
(OPTICAL 2)
JK1303
COAXIAL IN
DVD
DIGITAL IN
Q1001
SWITCH
Q1702
SWITCH
Q1701
REGULATOR
Q1703
SWITCH
IC1701
C0CBAAG00004
REGULATOR
IC1003
C0JBAB000633
LOGIC
INVERTER
X1001
IC1004
C0JBAZ002160
LOGIC
IC1005
C0JBAZ002161
LOGIC
IC1001
C2HBZZ000015
AC3/DTS
PARALLEL OR SERIAL HOST INTERFACE
COMPRESSED DATA INPUT INTERFACE SPDIF RECEIVER
DIGITAL AUDIO INPUT INTERFACE
FRAMER SHIFTER
INPUT BUFFER CONTROLLER
RAM INPUT BUFFER
24-bit DSP PROCESSING
RAM PROGRAM MEMORY
RAM DATA MEMORY
ROM PROGRAM MEMORY
RAM DATA MEMORY
STC
RAM OUTPUT BUFFER
OUTPUT FORMATTER
PLL CLOCK MANAGER
+B
DSP_OFF
SDOUT
LRCLK
SCLK


IC402
C0ABBB000297
OP-AMP
SW_OUT2
C_OUT2
Q410
REGULATOR
IC403
C0ABBB000297
OP AMP
IC401
C0ABBB000297
OP AMP
L_OUT2(R)
IC404
C0ABBB000297
OP AMP
SL(R)
Q409 (Q408)
MUTING SWITCH
Q411 (Q412)
MUTING SWITCH
Q423
MUTING SWITCH
Q424
MUTING SWITCH
IC903
C3EBEC000044
EEPROM IC
(NOT SUPPLIED)
TUNER_CLK
TUNER_ST
TUNER_SD
TUNER_DT
VOL_LATCH
VOL_DAT
VOL_CLK
CDOUT42
INT42
RST42
CS42
HAR_MUTE
HAR_LEVEL
DSP_OFF
CDIN49
CDOUT49
CCLK49
CS49
RST49
INT49
DSP_OFF
CS49300_CDIN
CS49300_CDOUT
CS49300_CCLK
CS49300_CS
CS49300_RESET
CS49300_INTREQ
TUNCLK
TUNER_ST
TUNER_SD
TUNDT
VOL_LT
VOL_DT
VOL_CLK
CS42516_CDOUT
CS42516_INT
CS42516_RESET
CS42516_CS
HAR_MUTE
HAR_LEVEL
MUTE_HP
MUTE_ALL
IC900
C2CBHG000166
MICROPROCESSOR
XOUT
XIN
CF901


Q401
MUTING SWITCH
JK405
ACTIVE SUBWOOFER
17 SUBWOOFER
15 CENTER
Q402
MUTING SWITCH
7(11) FRONTL(R)
Q405 (Q406)
MUTING SWITCH
Q404 (Q407)
MUTING SWITCH
12(14) SURR_L(R)
DVDAC1 3
SUBAC2 23
DVDAC2 1
SUBAC1 25
FL1 22
FL2 24
TO FL DISPLAY
PCONT 19
SYNC 21
MUTE_H 5
DCDET 2
D101
Q101
LED DRIVE
+B
Q420
MUTING SWITCH
Q421
MUTING SWITCH
Q422
MUTING SWITCH
HP100
HEADPHONE
RCH
IC901
C0ABBB000297
OP-AMP
IC902
C0ABBB000297
OP-AMP
CON9016
Q901
RESET SWITCH
22 MUTE_S/C
55 HP_SW
12 RESET
94 DC_DET
28 SWPOWER
20 AC_SYNC
51 PWR RELAY
84 SPEC2_1KHZ
85 SPEC3_10KHZ
83 SPEC1_100HZ
IC900
C2CBHG000166
MICROPROCESSOR
19 REMOTE
53 ENCA
54 ENCB
56 VOL_LED
60 D0
59 PLII
58 DTS
61 HARMONIC_LED
Z100
REMOTE SENSOR
VR100
JOG VOL
Q100
Q105
Q106
Q107
Q104
LED DRIVE



SIGNAL LINES

: MAIN SIGNAL LINE
: AUXILLARY SIGNAL LINE
: FM /AM SIGNAL LINE
: VIDEO SIGNAL LINE

( ) Indicates the Pin No. of Right Channel.

NOTE : Signal Lines are applicable to the Left Channel only.

13 Schematic Diagram

(All schematic diagrams may be modified at any time with the development of the new technology)

Note:

S100 : POWER switch
S101 : MEMORY switch
S102 : TUNE UP switch
S103 : INPUT SELECTOR switch
S104 : TUNE DOWN switch
S105 : H.BASS switch
VR100 : JOG VOLUME switch

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

- **Importance safety notice :**

  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer´s specified parts shown in the parts list.

Caution !

IC, LSI and VLSI are sensitive to static electricity.

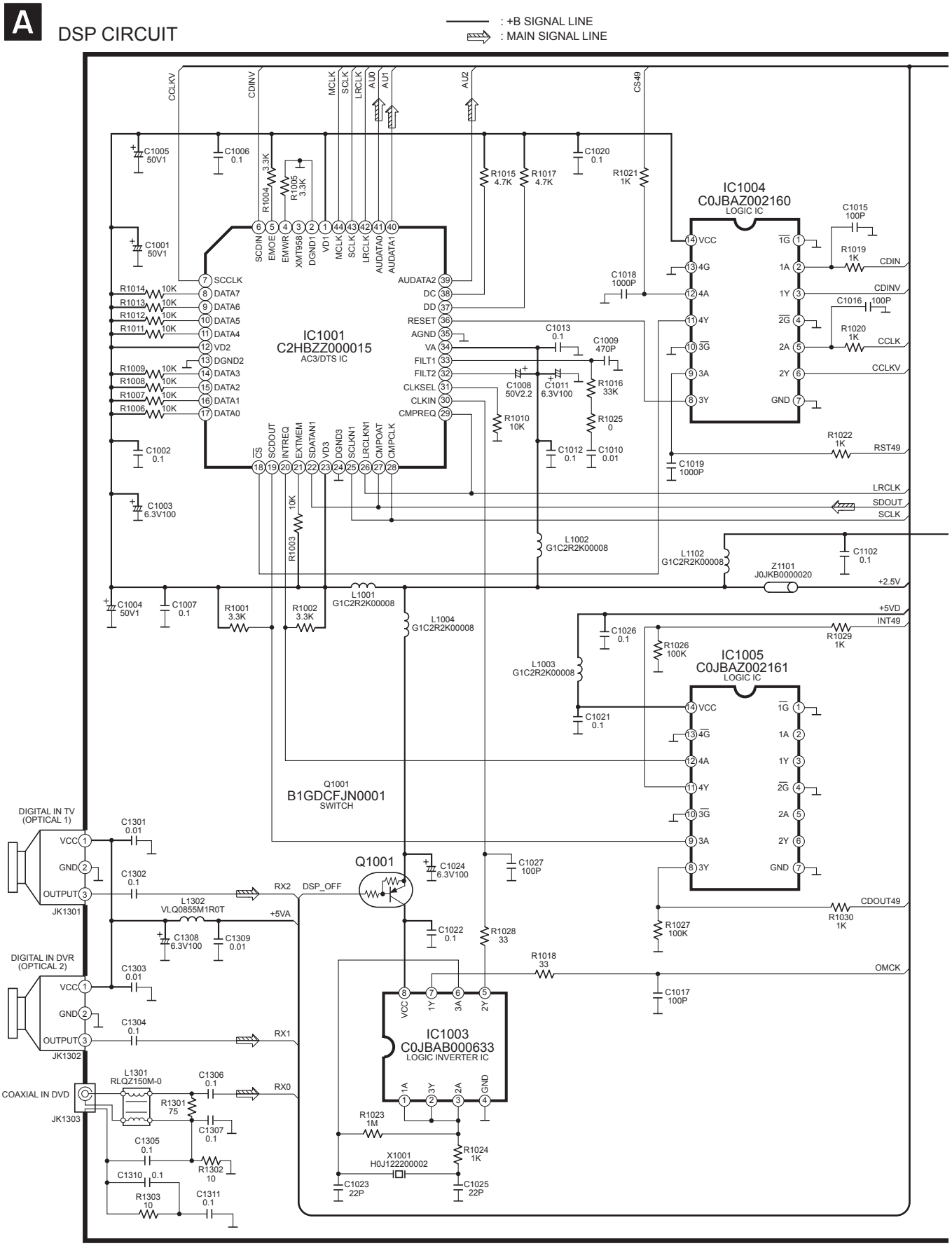
Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

13.1. (A) DSP Circuit

SCHEMATIC DIAGRAM - 1

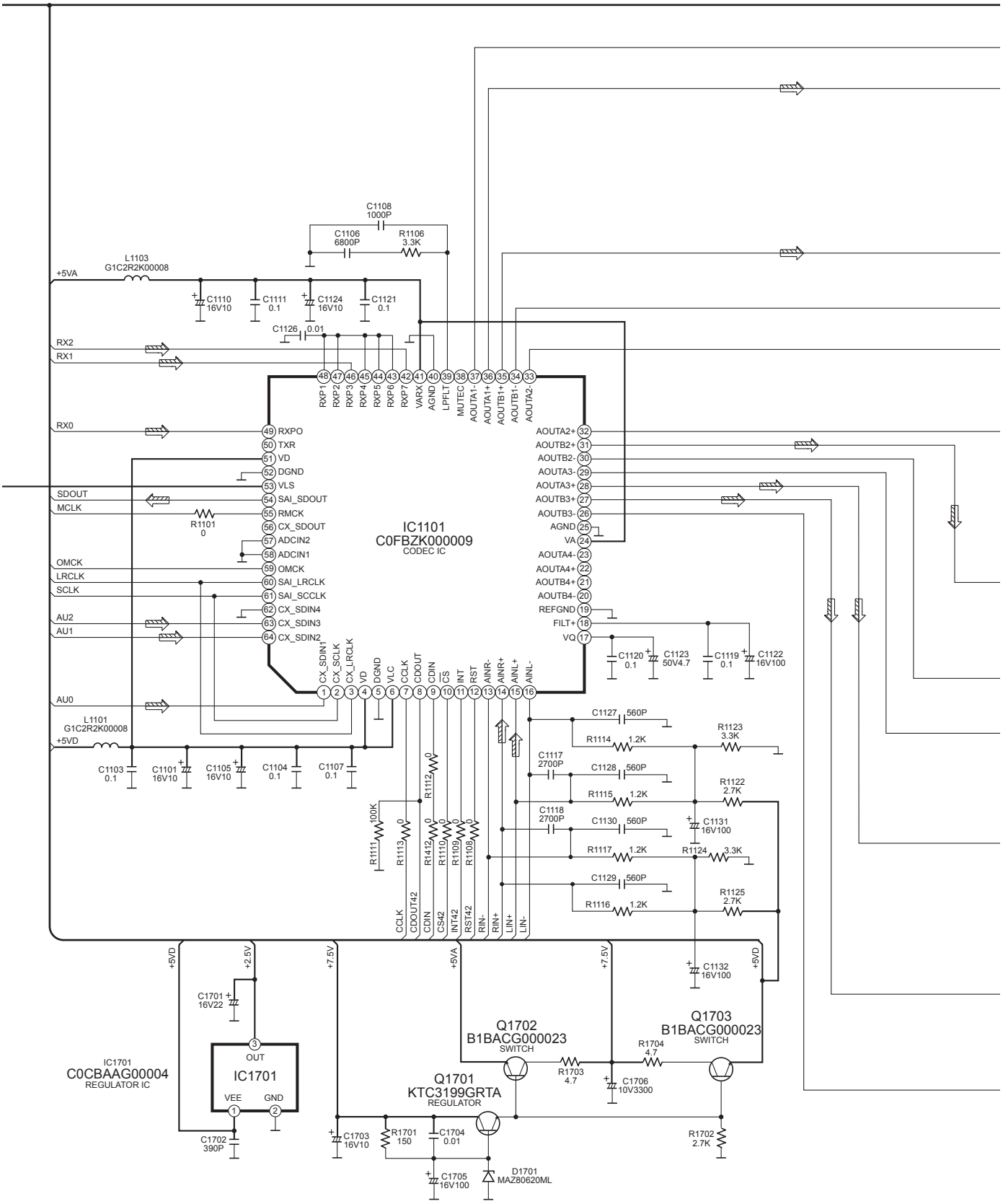
A DSP CIRCUIT



SCHEMATIC DIAGRAM - 2

A DSP CIRCUIT

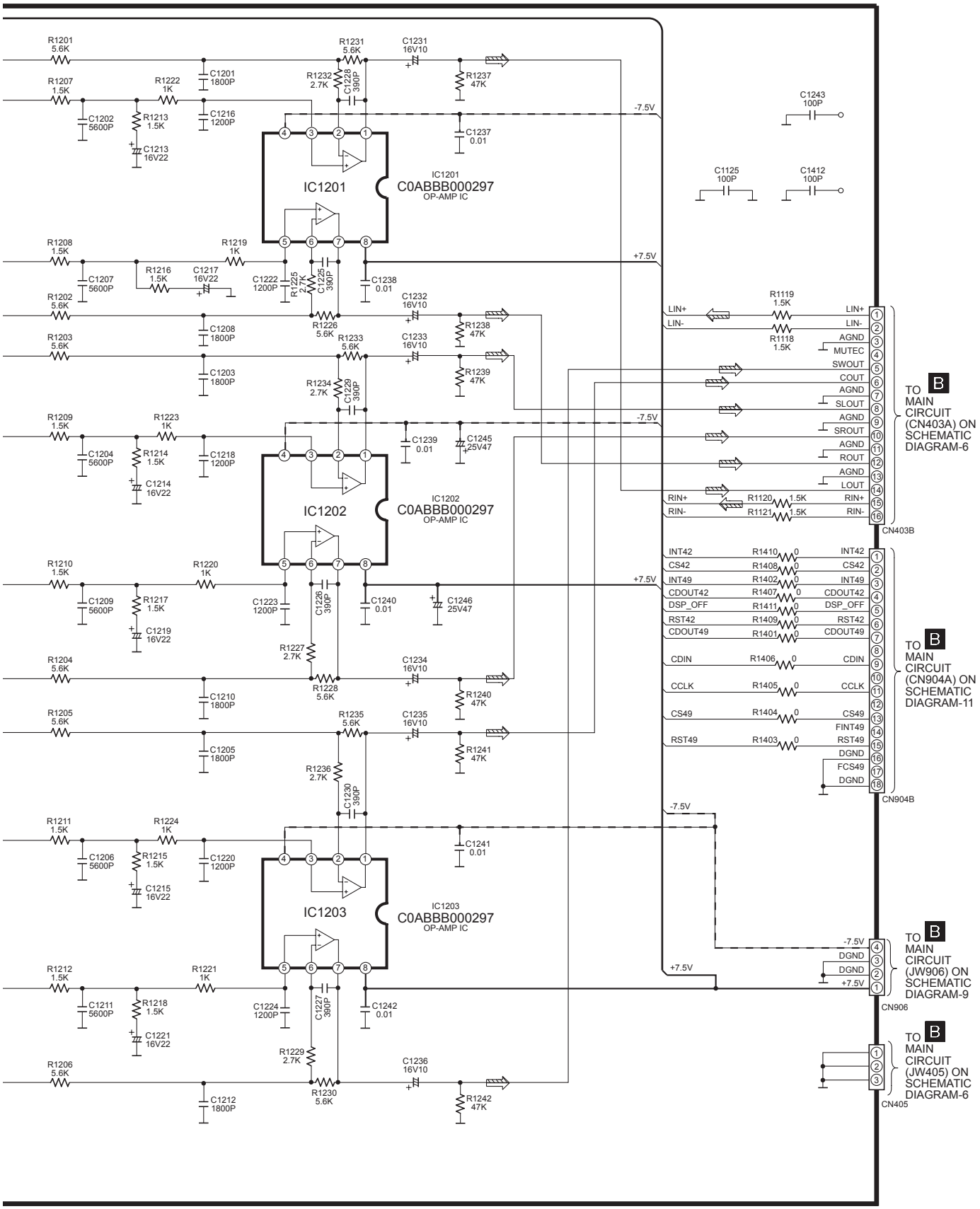
: +B SIGNAL LINE
: MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 3

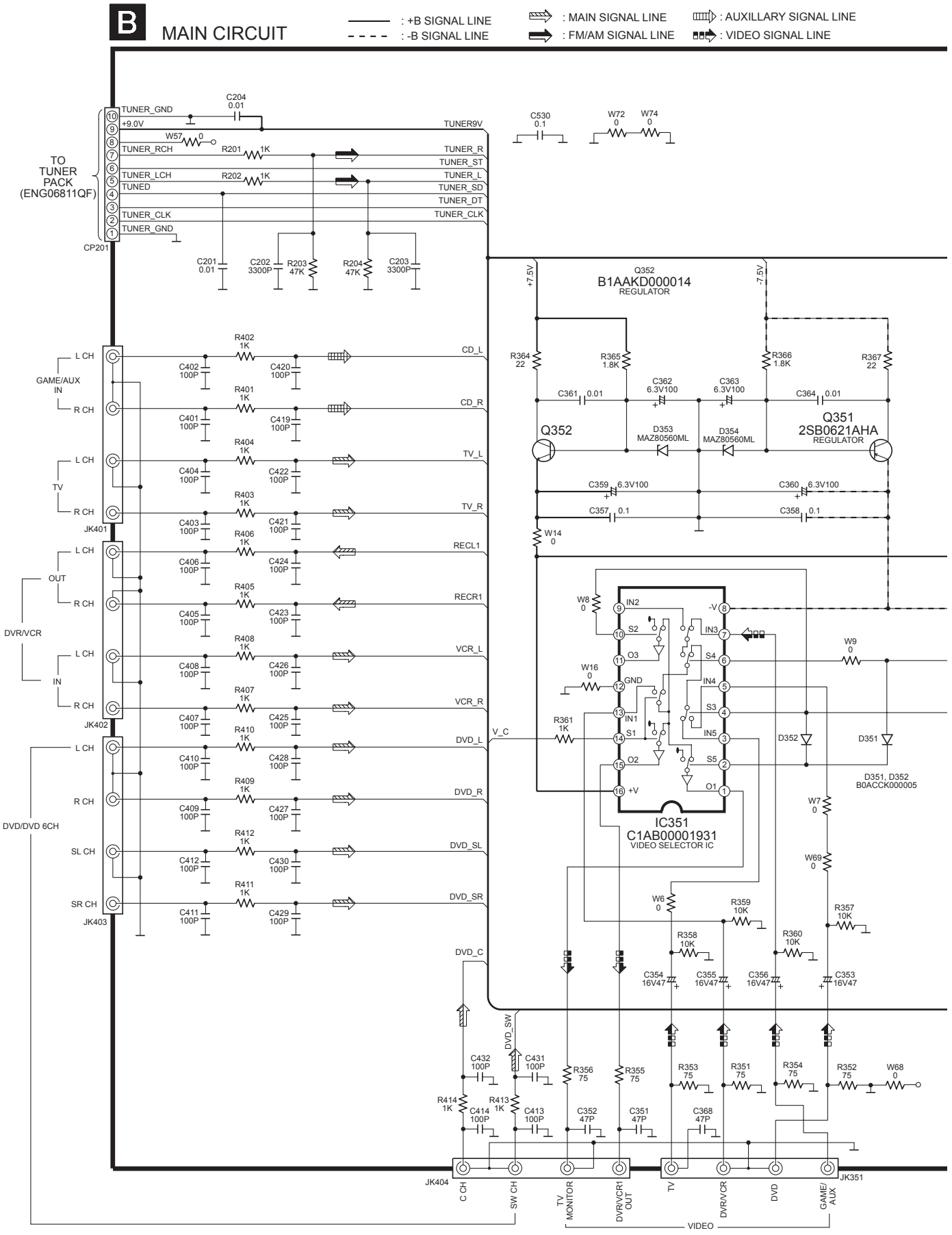
A DSP CIRCUIT

: +B SIGNAL LINE
: -B SIGNAL LINE
: MAIN SIGNAL LINE



13.2. (B) Main Circuit

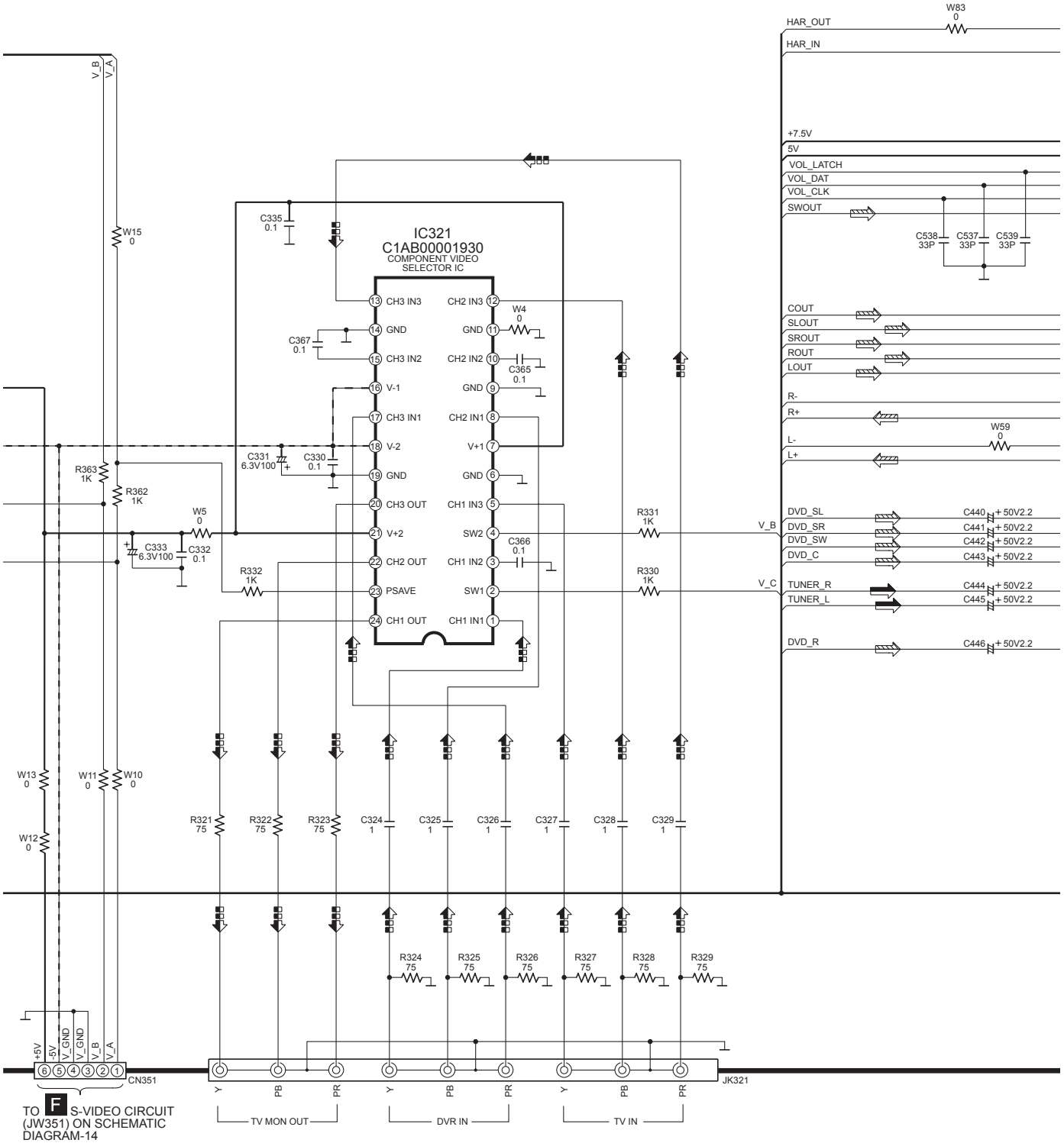
SCHEMATIC DIAGRAM - 4



SCHEMATIC DIAGRAM - 5

B MAIN CIRCUIT

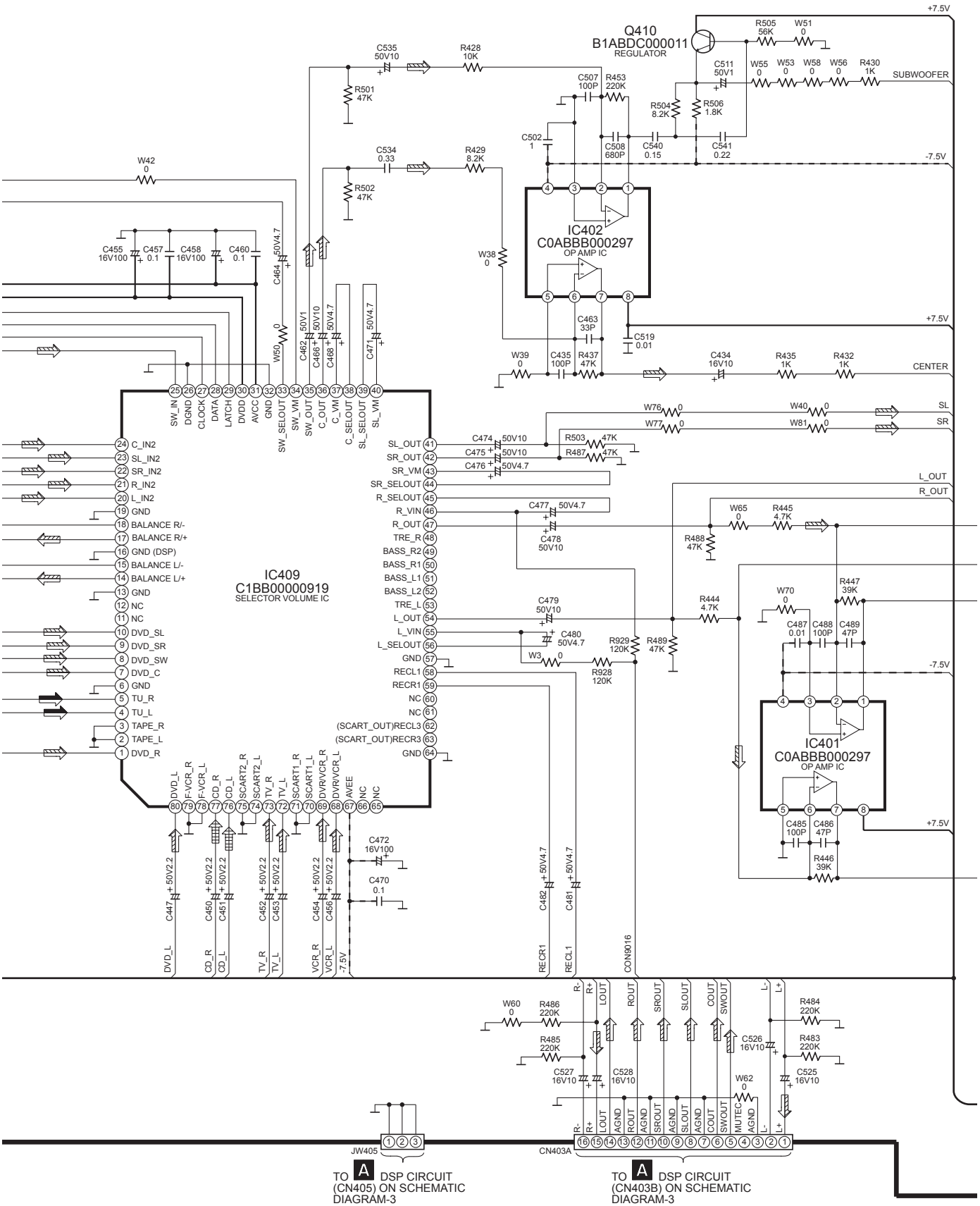
: +B SIGNAL LINE
: -B SIGNAL LINE
: FM/AM SIGNAL LINE
: MAIN SIGNAL LINE
: VIDEO SIGNAL LINE



SCHEMATIC DIAGRAM - 6

B MAIN CIRCUIT

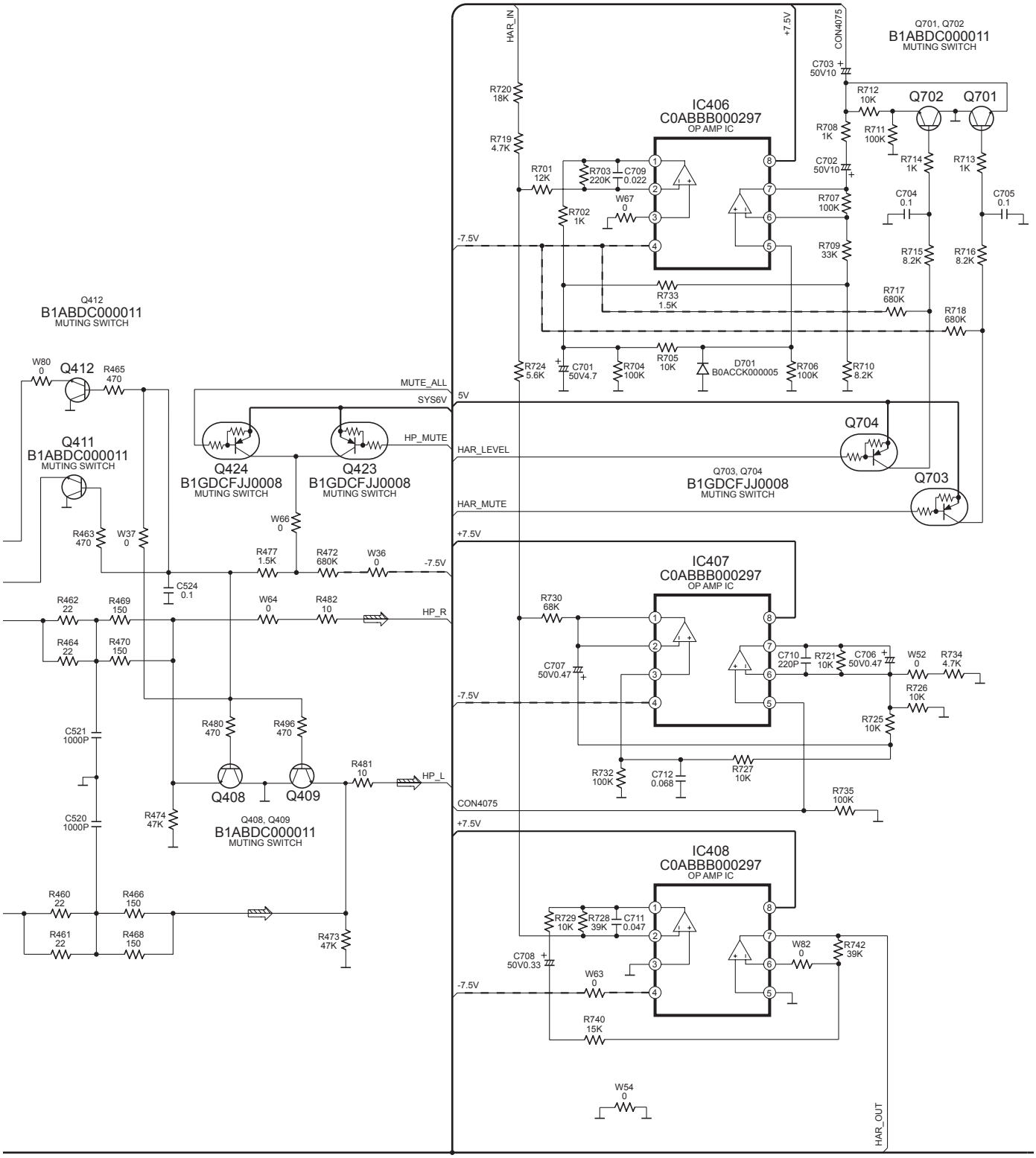
: +B SIGNAL LINE
: -B SIGNAL LINE
: AUXILLARY SIGNAL LINE
: MAIN SIGNAL LINE
: FM/AM SIGNAL LINE



SCHEMATIC DIAGRAM - 7

B MAIN CIRCUIT

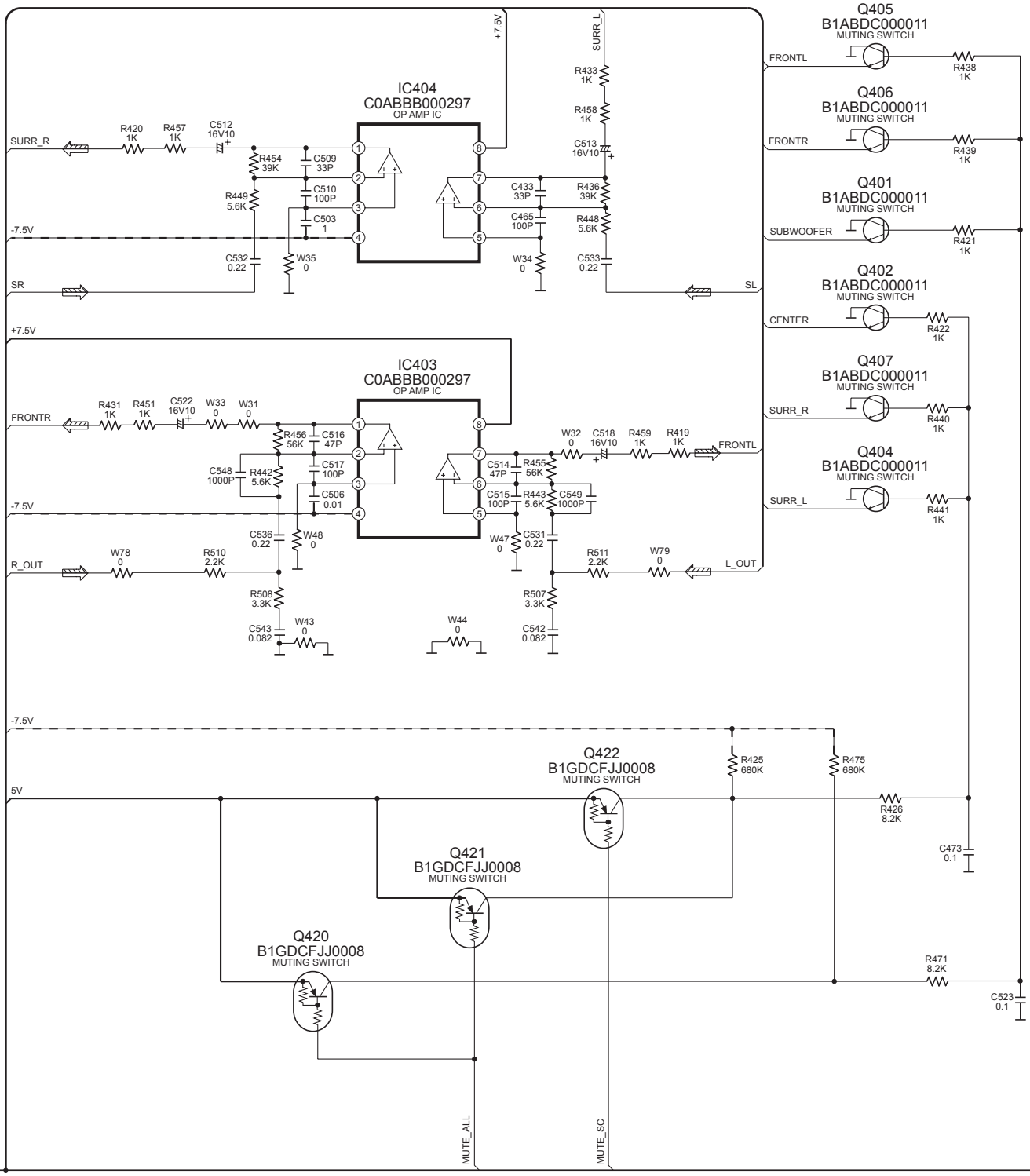
: +B SIGNAL LINE
: -B SIGNAL LINE
: MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 8

B MAIN CIRCUIT

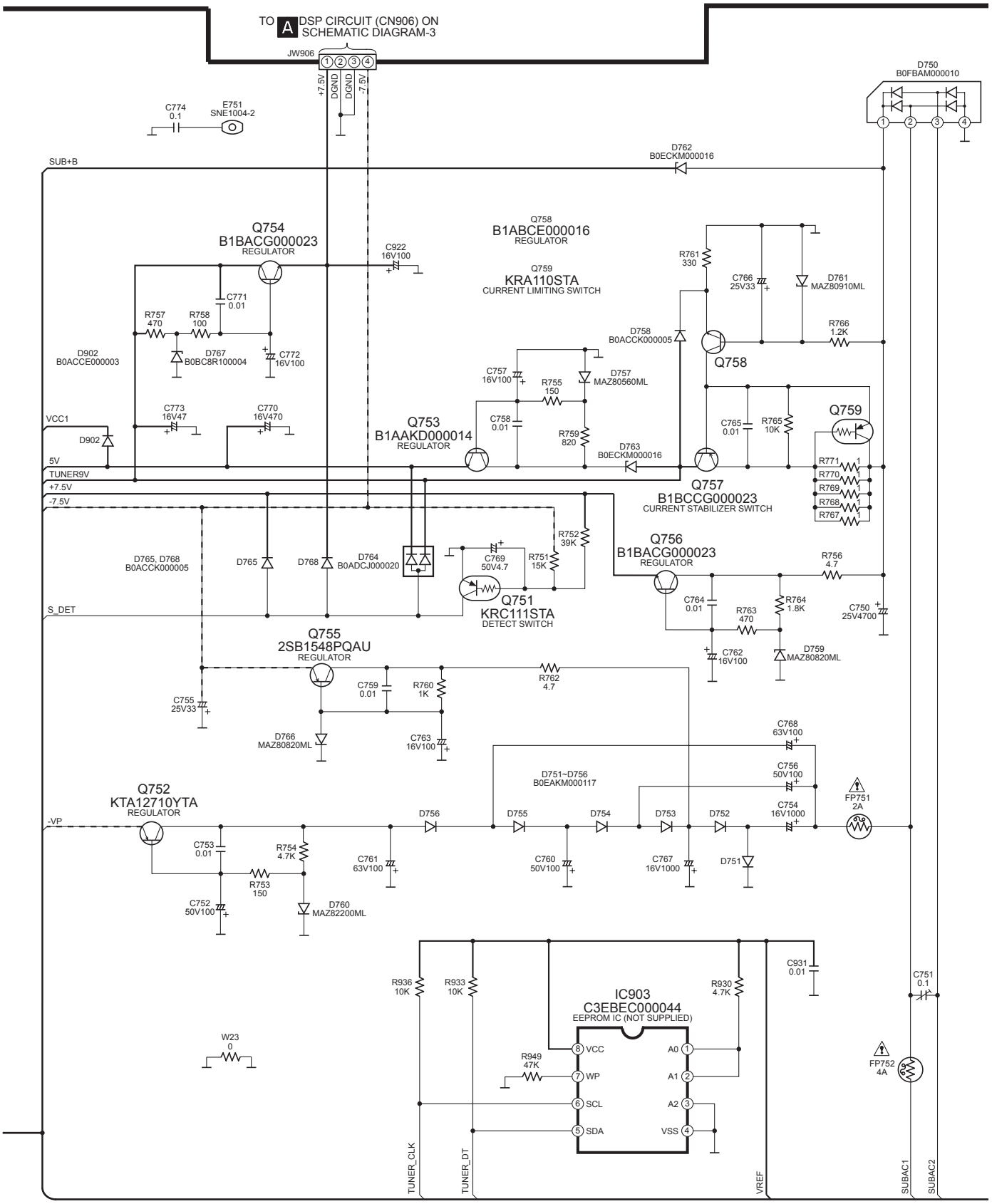
: +B SIGNAL LINE
: -B SIGNAL LINE
: MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 9

B MAIN CIRCUIT

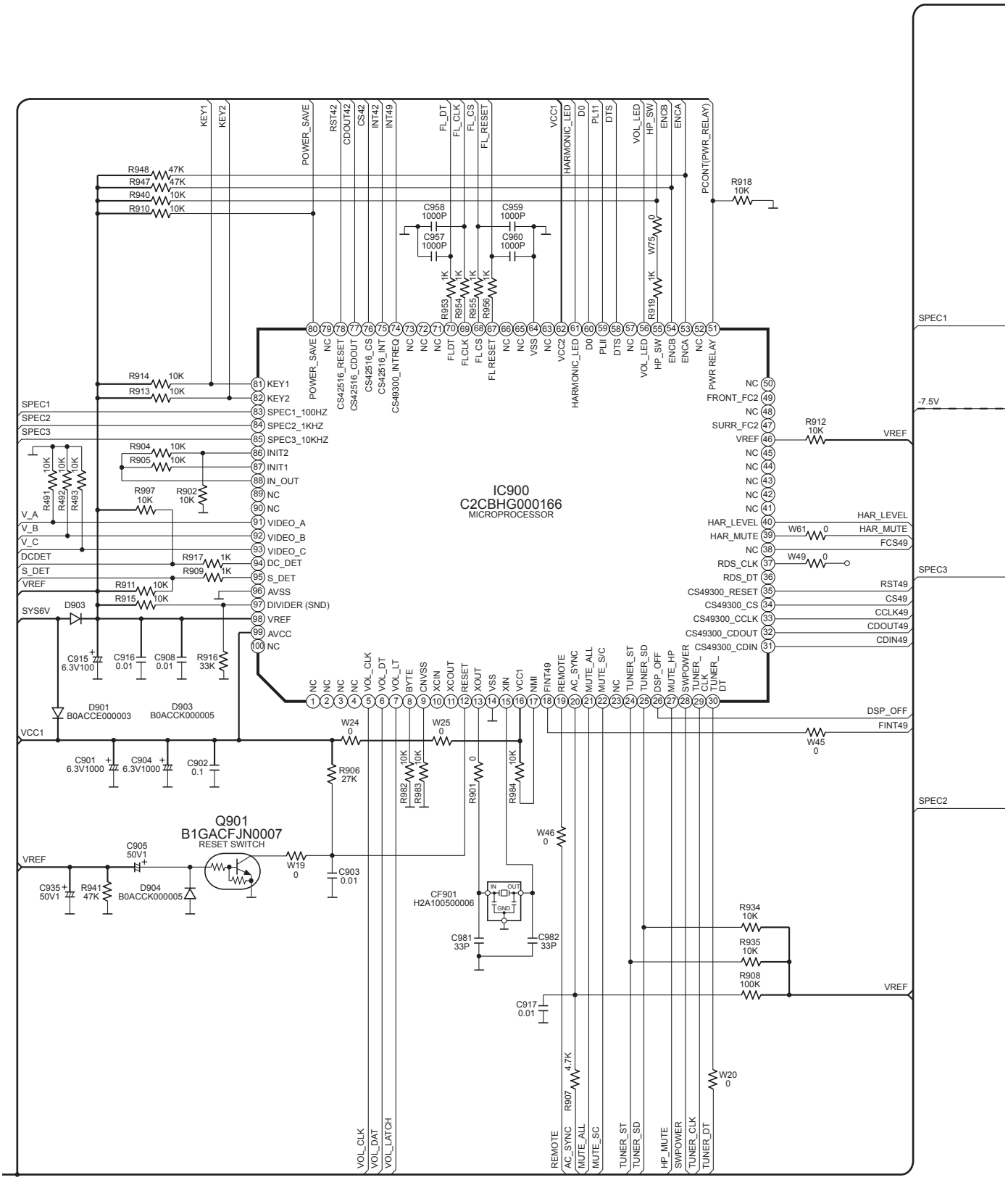
: +B SIGNAL LINE
: -B SIGNAL LINE



SCHEMATIC DIAGRAM - 10

B MAIN CIRCUIT

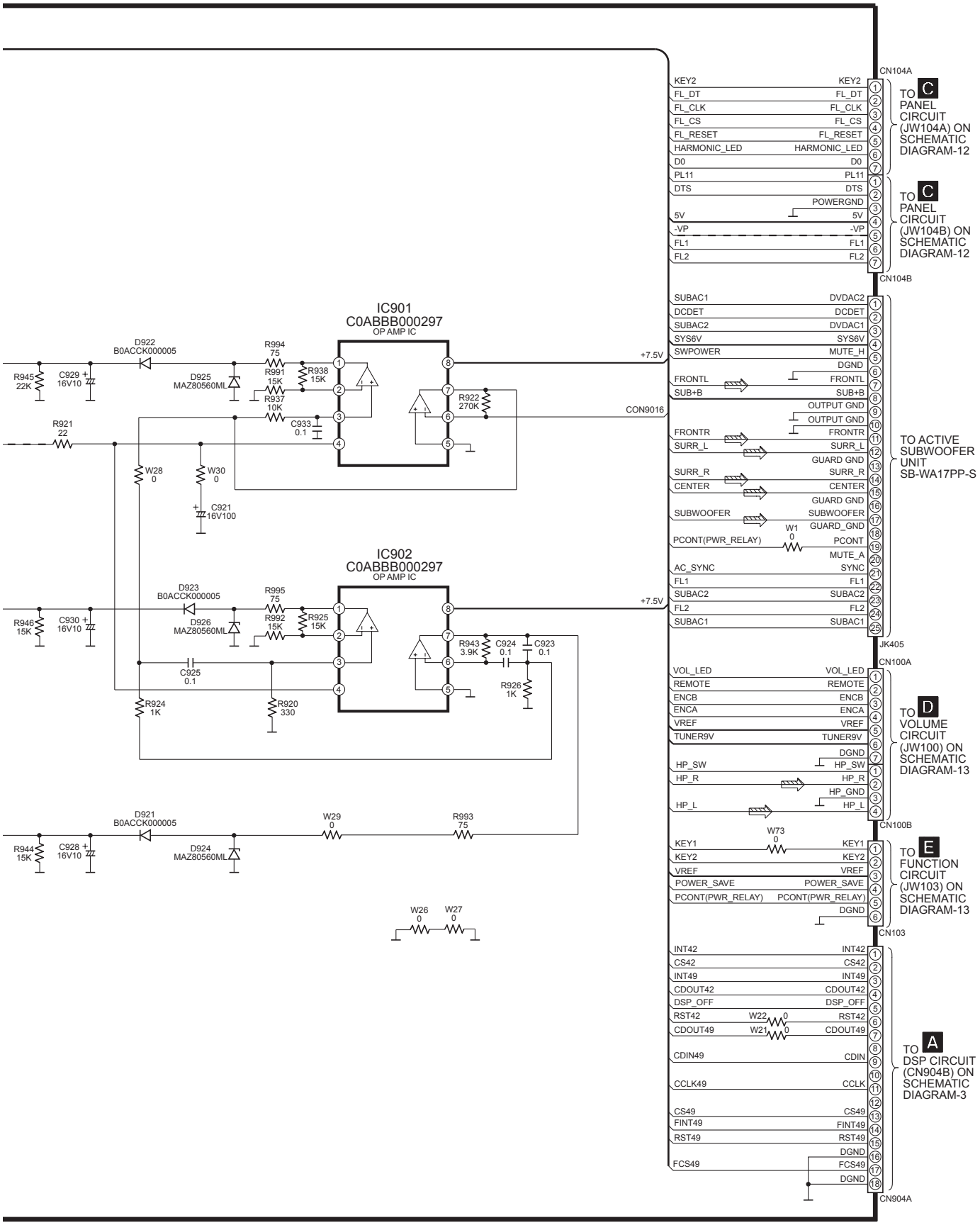
——— : +B SIGNAL LINE
- - - - : -B SIGNAL LINE



SCHEMATIC DIAGRAM - 11

B MAIN CIRCUIT

: +B SIGNAL LINE
: -B SIGNAL LINE
: MAIN SIGNAL LINE



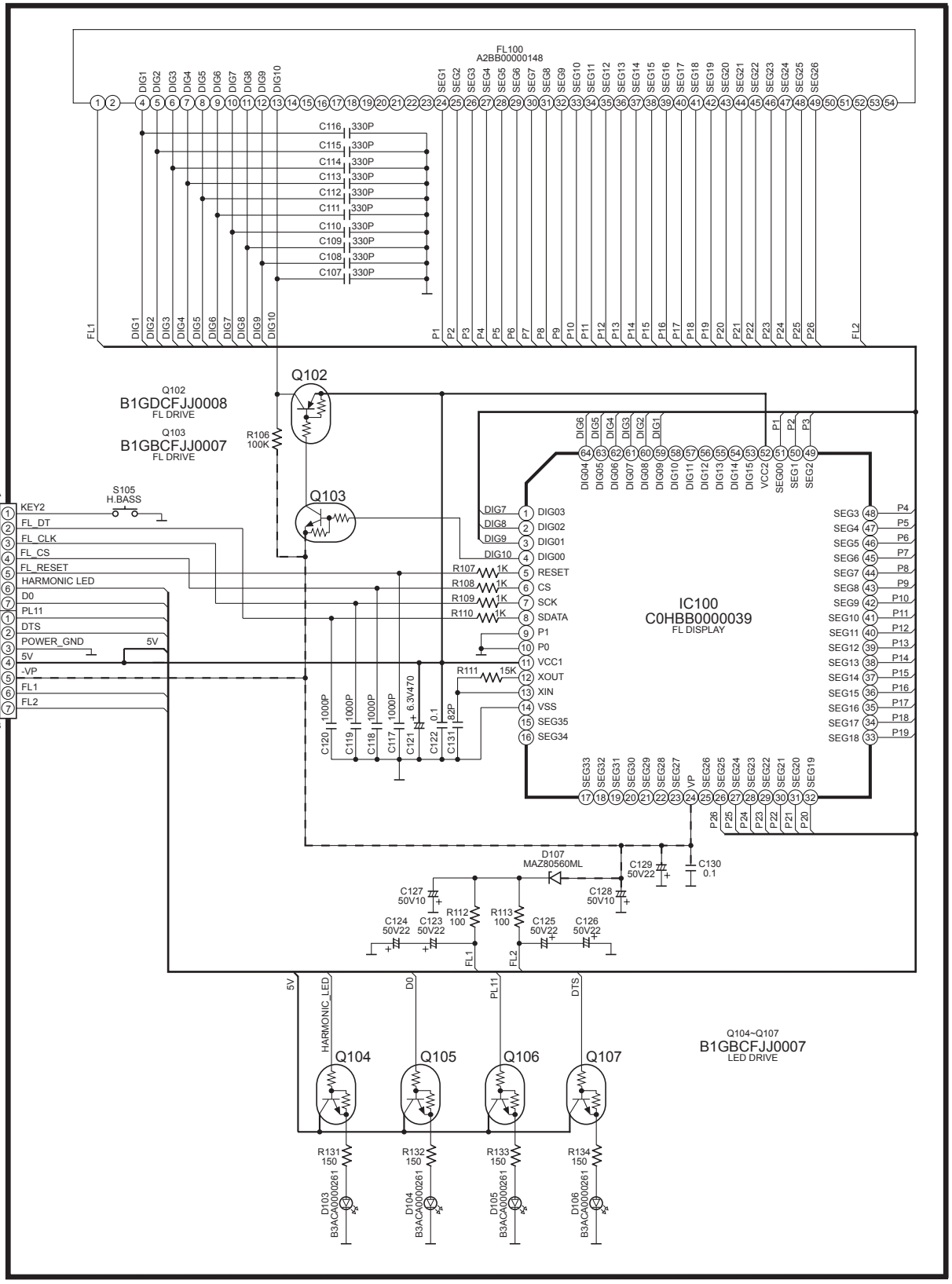
13.3. (C) Panel Circuit

SCHEMATIC DIAGRAM - 12

C PANEL CIRCUIT

– – – : -B SIGNAL LINE

——— : +B SIGNAL LINE

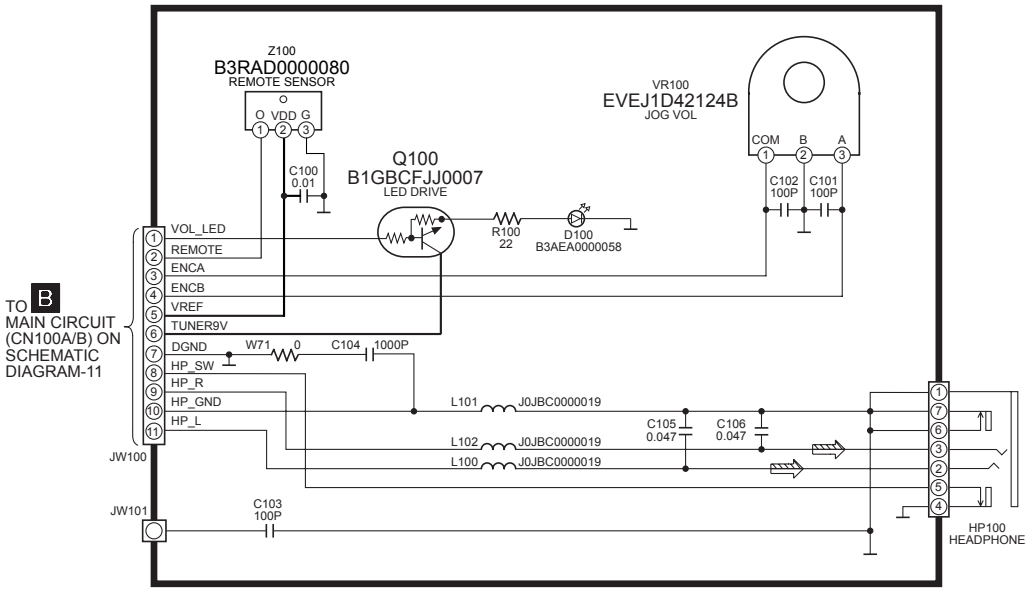


13.4. (D) Volume Circuit & (E) Function Circuit

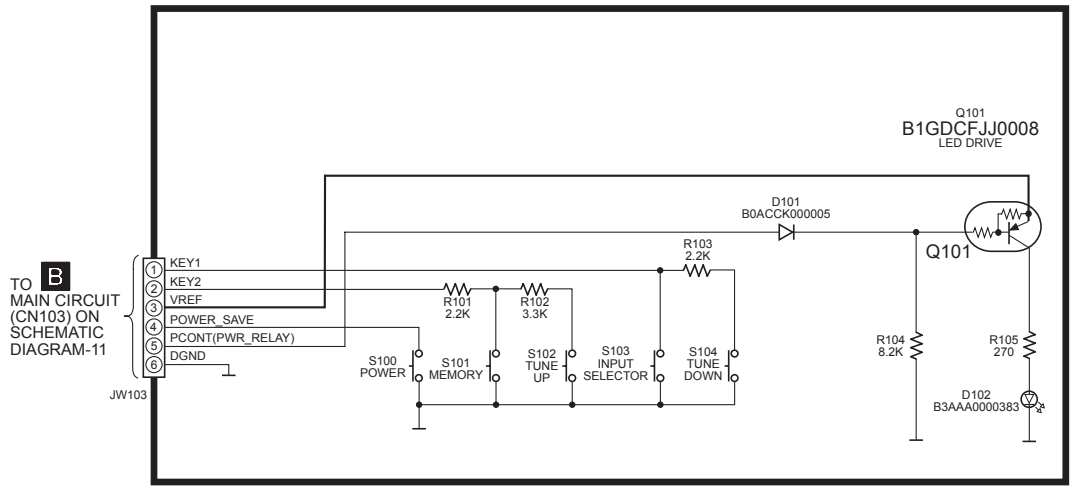
SCHEMATIC DIAGRAM - 13

D VOLUME CIRCUIT

: MAIN SIGNAL LINE
: +B SIGNAL LINE



E FUNCTION CIRCUIT



13.5. (F) S-Video Circuit

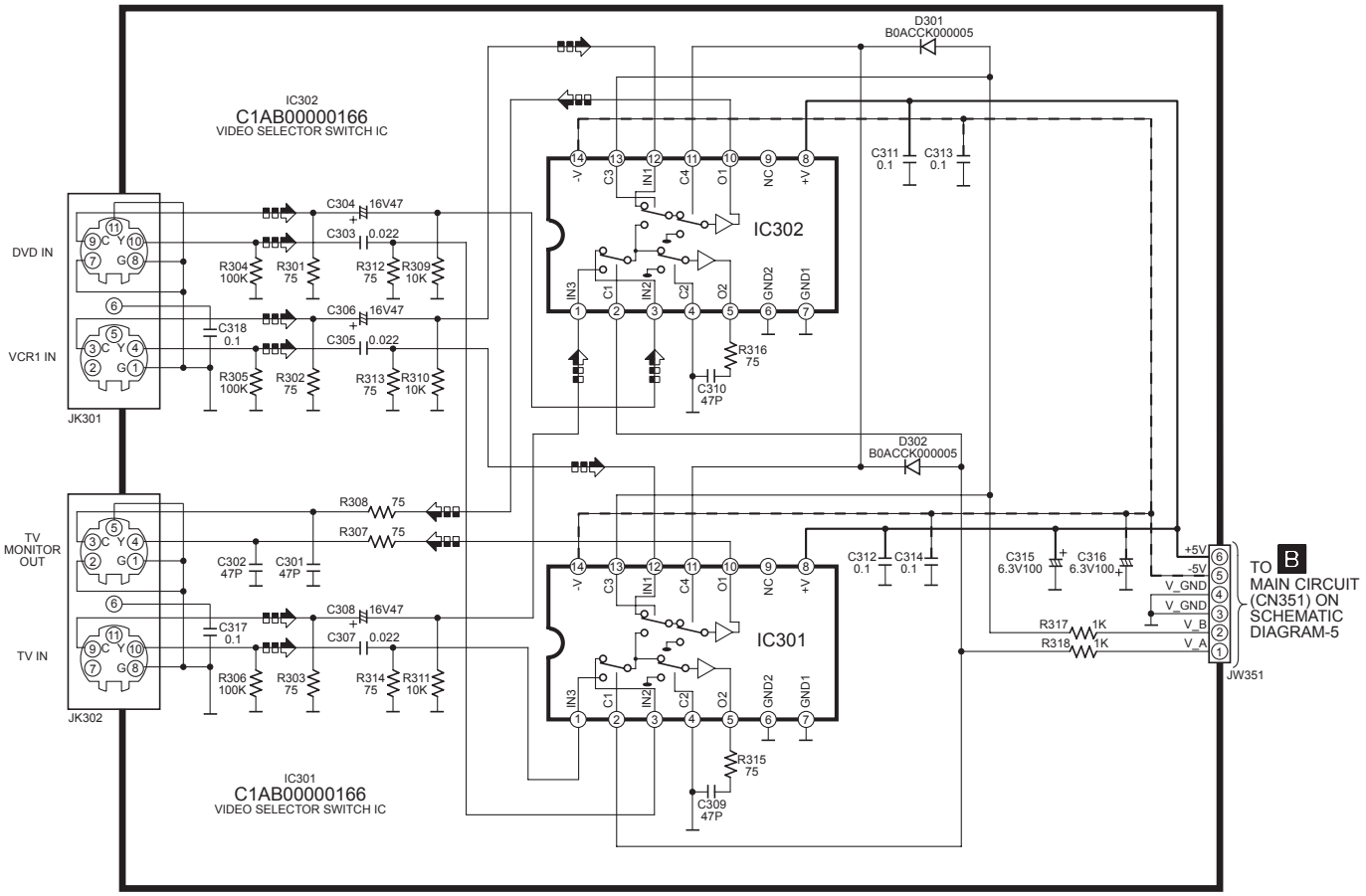
SCHEMATIC DIAGRAM - 14

F S-VIDEO CIRCUIT

——— : +B SIGNAL LINE

– – – : -B SIGNAL LINE

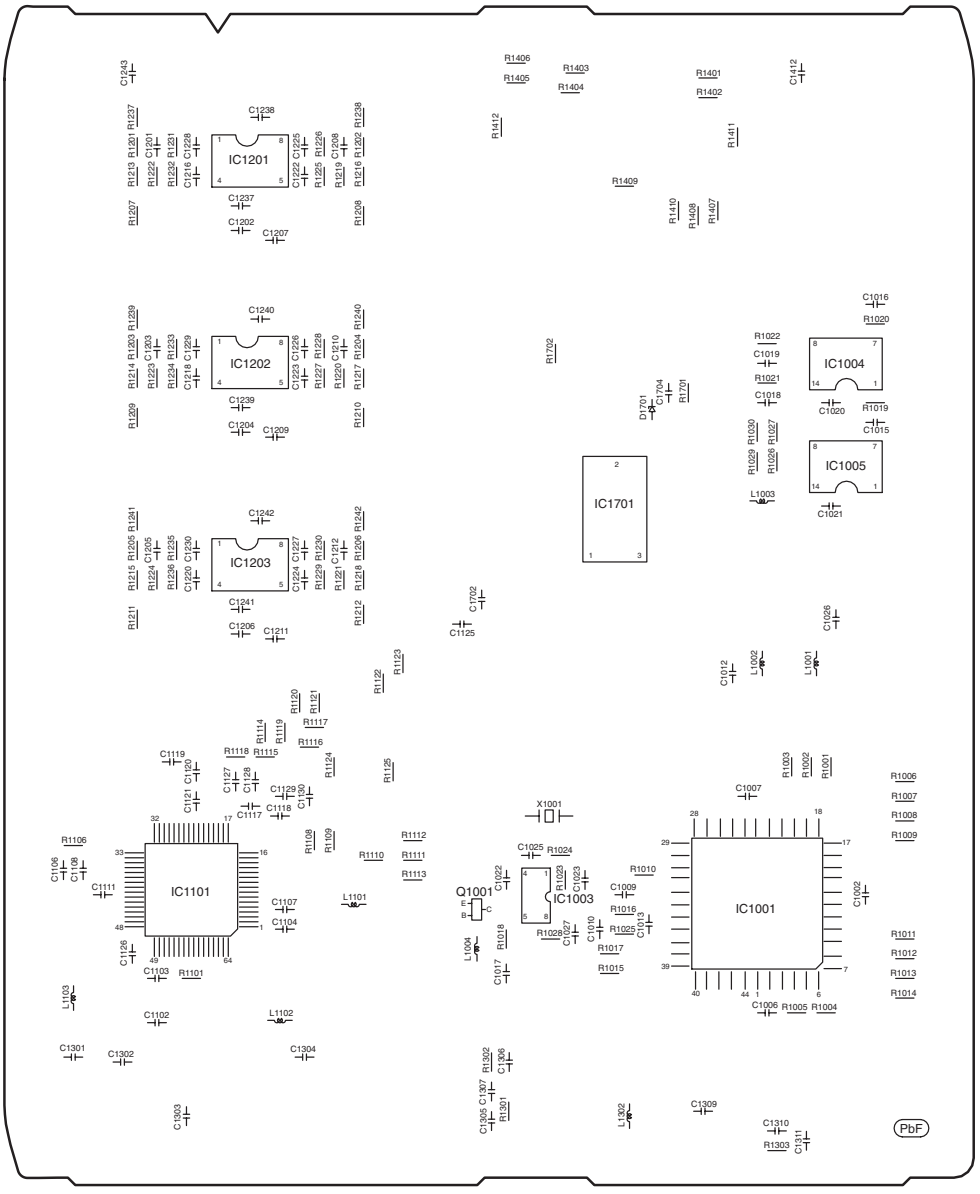
: VIDEO SIGNAL LINE



14 Printed Circuit Board Diagram

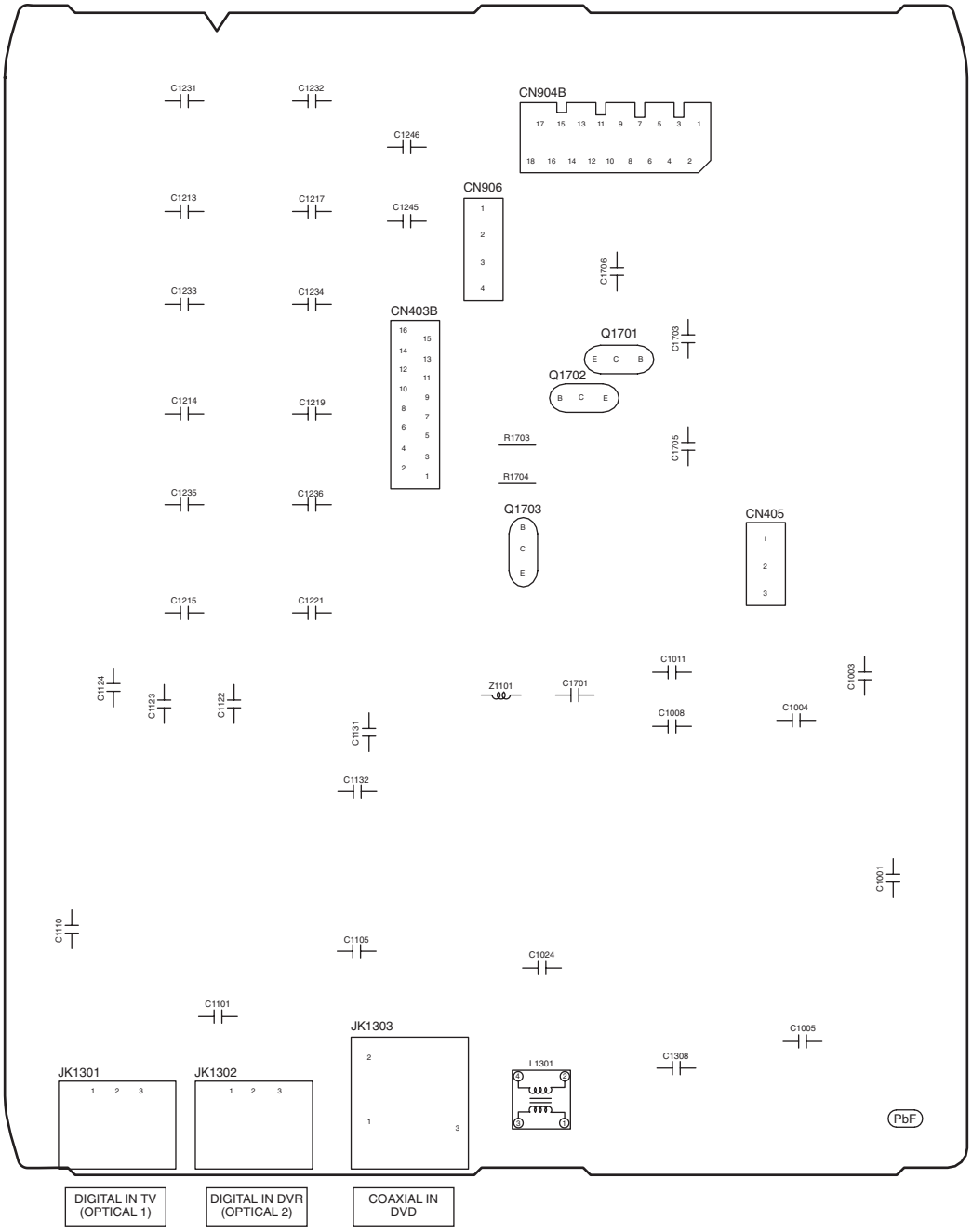
14.1. (A) DSP P.C.B.

A DSP P.C.B (REPV0060A-T)



(SIDE A)

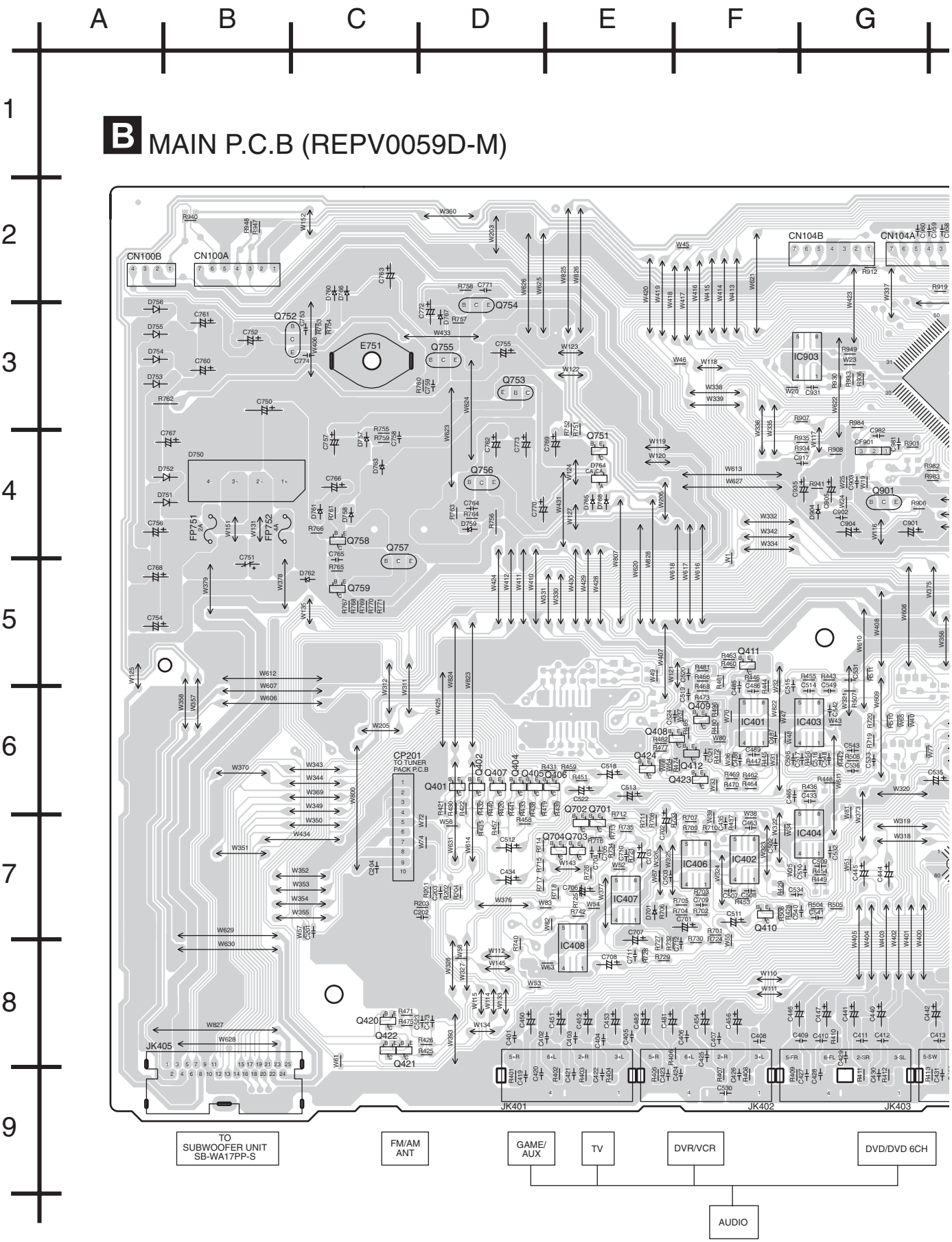
A DSP P.C.B (REPV0060A-T)



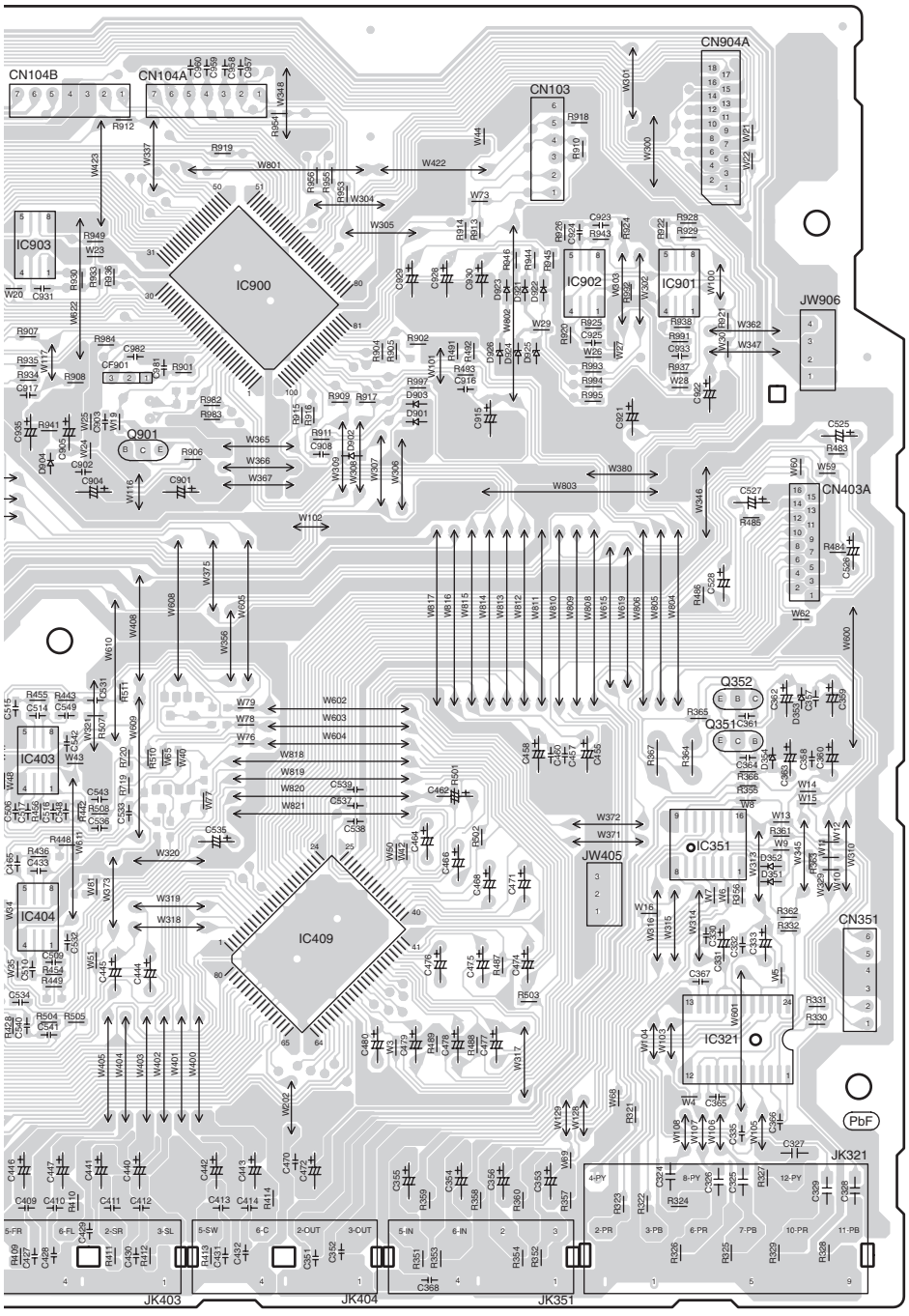
(SIDE B)

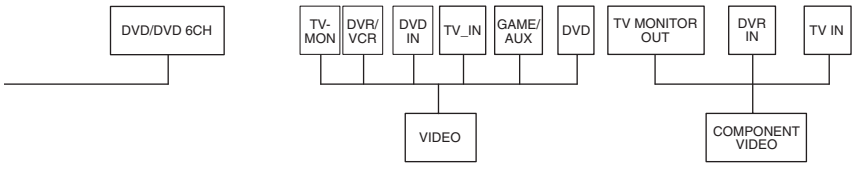
14.2. (B) Main P.C.B.

B MAIN P.C.B (REPV0059D-M)



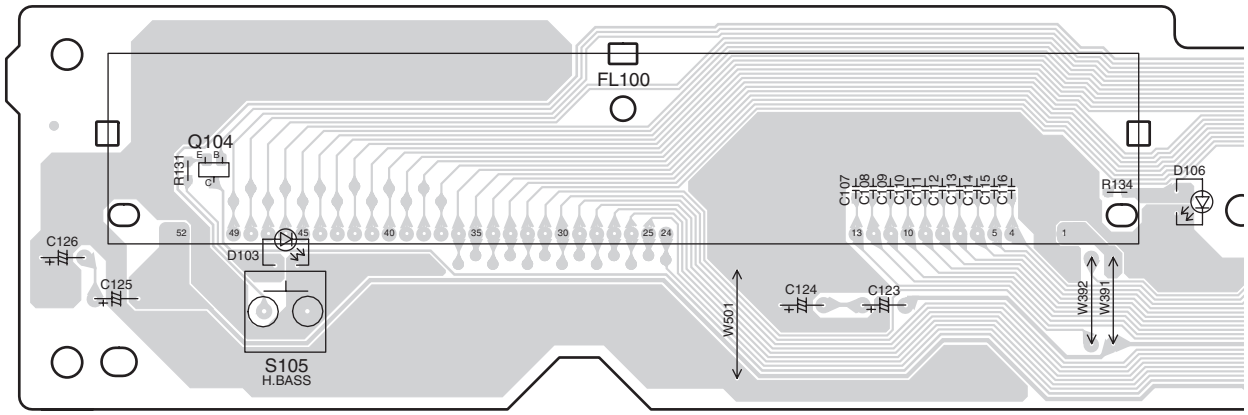
G H I J K L M


CN104B
CN104A
CN103
CN904A
IC903
IC900
IC902
IC901
JW906
Q901
CN403A
Q352
Q351
IC403
IC404
IC409
IC351
JW405
CN351
IC321
PbF
JK321
JK403
JK404
JK351

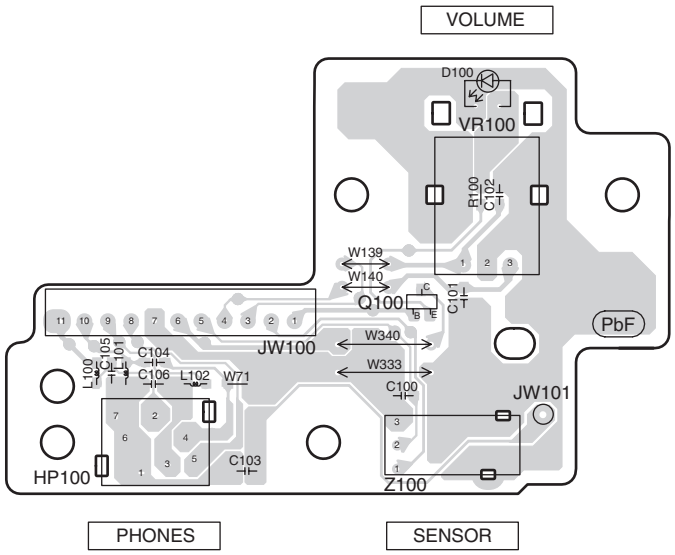

DVD/DVD 6CH
TV-MON
DVR/VCR
DVD IN
TV_IN
GAME/AUX
DVD
TV MONITOR OUT
DVR IN
TV IN
VIDEO
COMPONENT VIDEO

14.3. (C) Panel P.C.B. & (D) Volume P.C.B.

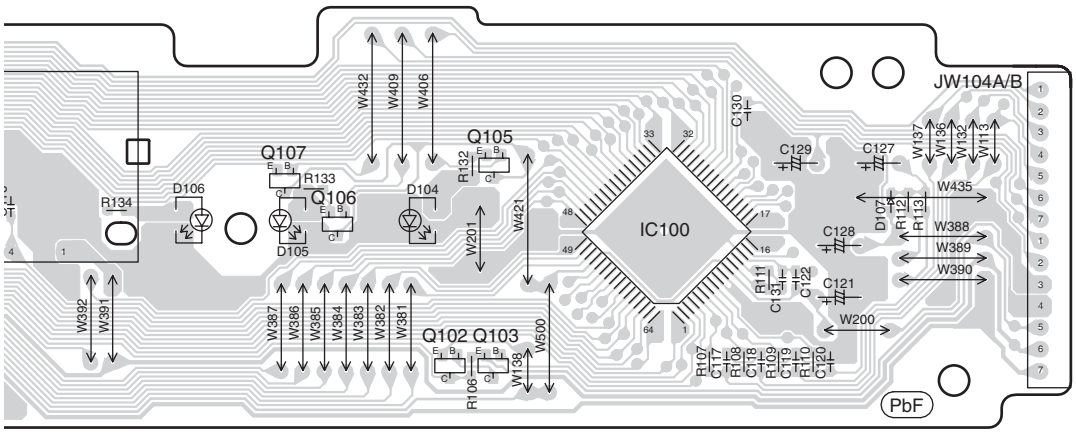
C PANEL P.C.B (REPV0059D-M)



D VOLUME P.C.B (REPV0059D-M)

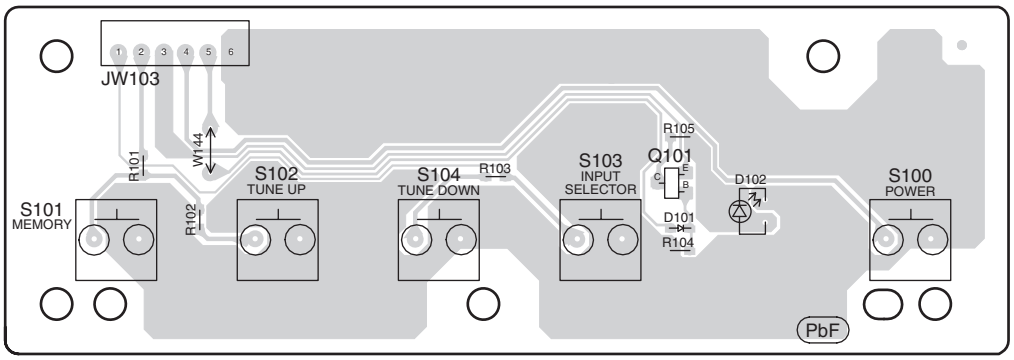


G H I J K L M

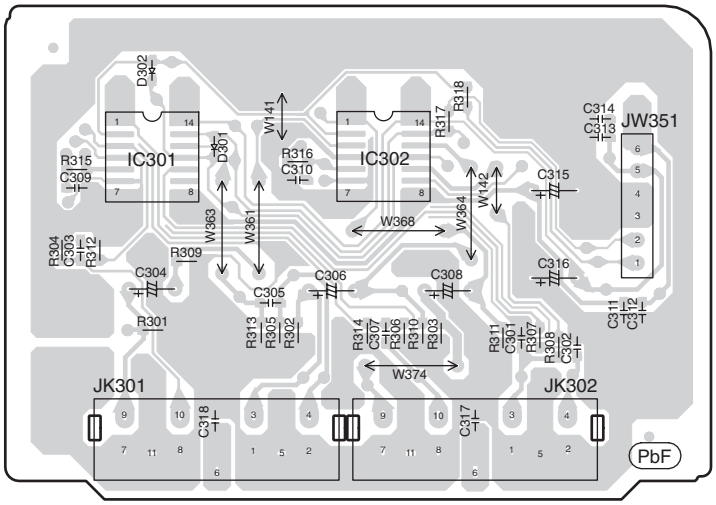

JW104A/B
IC100
Q107
Q106
Q105
Q102 Q103
D106
D105
D104
R134
R133
R132
R106
W432
W409
W406
W421
W201
W500
W392
W391
W387
W386
W385
W384
W383
W382
W381
W138
C130
C129
C127
C128
C121
C131
C122
R111
R107
C117
C118
R109
C119
R110
C120
W137
W136
W132
W113
W435
W388
W389
W390
W200
D107
R112
R113
PbF

14.4. (E) Function P.C.B. & (F) S-Video P.C.B.

E FUNCTION P.C.B (REPV0059D-M)

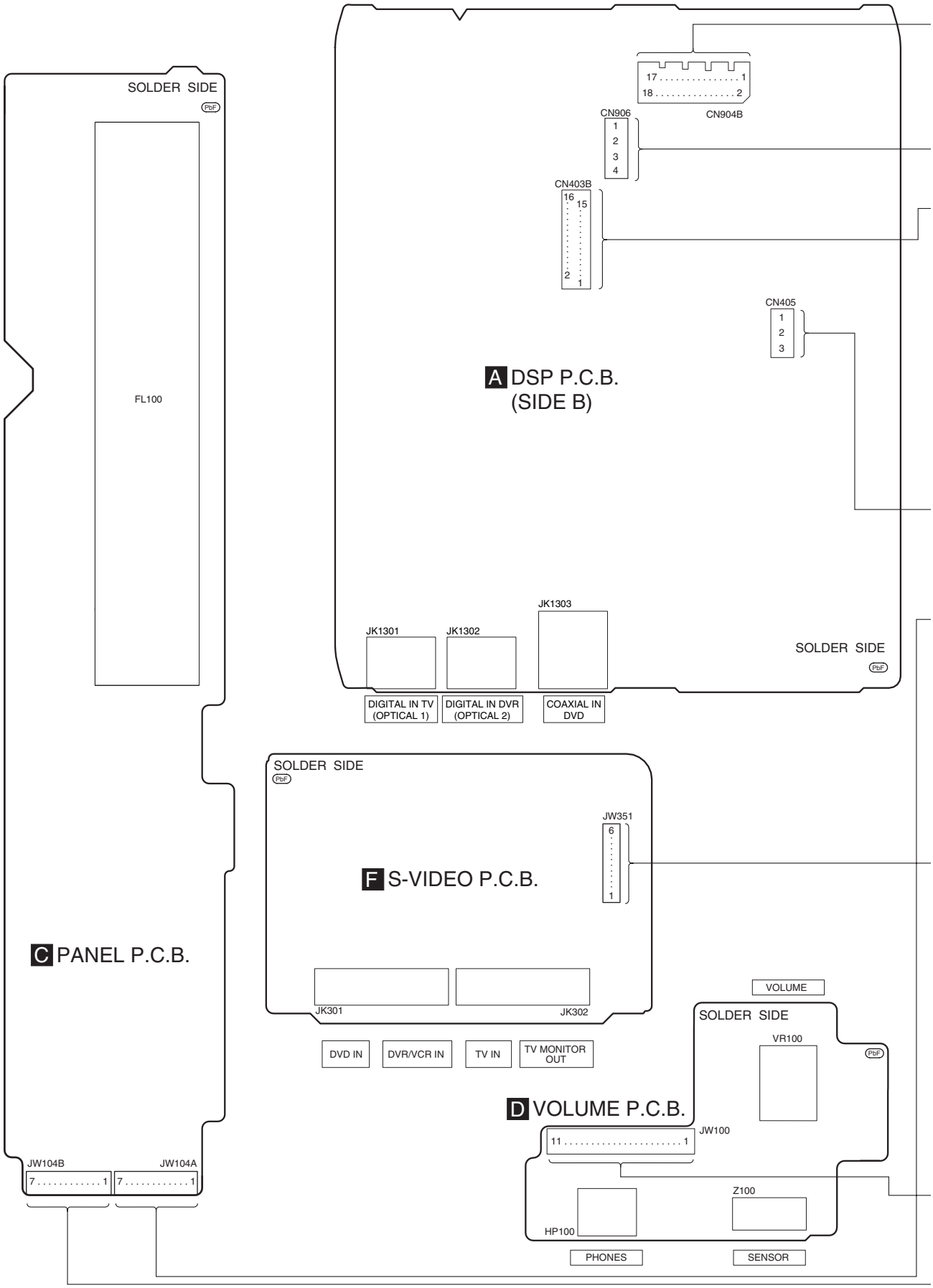


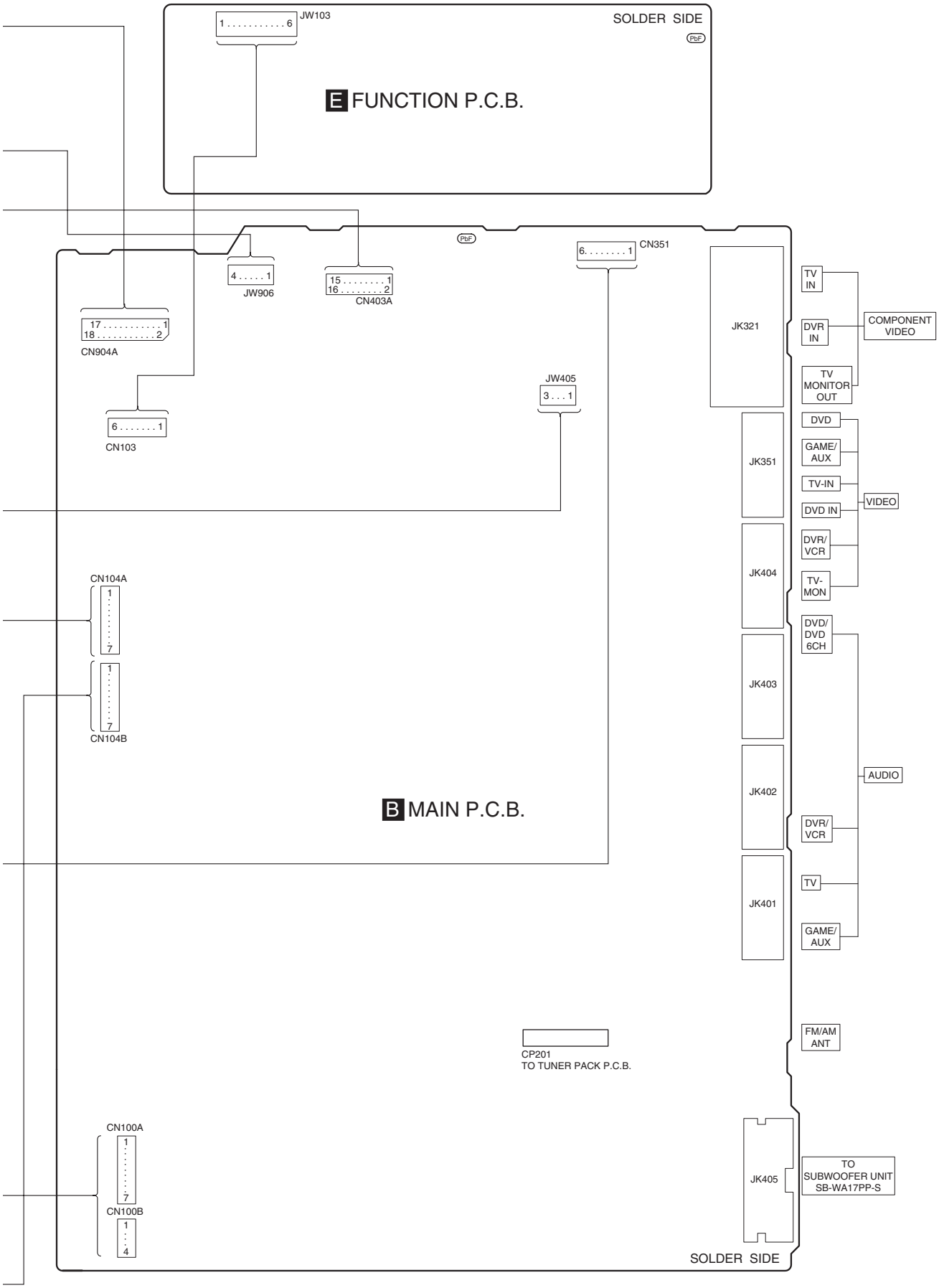
F S-VIDEO P.C.B (REPV0059D-M)



DVD IN | DVR/VCR IN | TV IN | TV MONITOR OUT

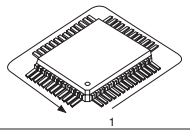
15 Wiring Connection Diagram



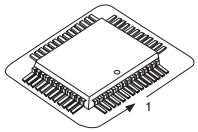

SOLDER SIDE
PbF
E FUNCTION P.C.B.
1 6
JW103
PbF
6. 1
CN351
4 1
JW906
15 1
16 2
CN403A
17 1
18 2
CN904A
6 1
CN103
JW405
3 . . . 1
CN104A
1 7
1 7
CN104B
B MAIN P.C.B.
CP201
TO TUNER PACK P.C.B.
CN100A
1 7
CN100B
1 . . 4
SOLDER SIDE
JK321
JK351
JK404
JK403
JK402
JK401
JK405
TV IN
DVR IN
COMPONENT VIDEO
TV MONITOR OUT
DVD
GAME/ AUX
TV-IN
DVD IN
VIDEO
DVR/ VCR
TV-MON
DVD/ DVD 6CH
AUDIO
DVR/ VCR
TV
GAME/ AUX
FM/AM ANT
TO SUBWOOFER UNIT SB-WA17PP-S

16 Type Illustration of IC´s, Transistors and Diodes

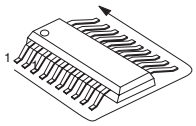
C0FBZK000009 (64p)
C0HBB0000039 (64p)
C2CBHG000166 (100p)
C1BB00000919 (80p)



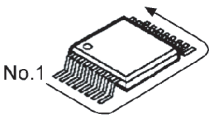
C2HBZZ000015 (44p)



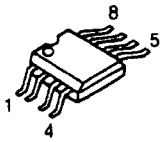
C1AB00001930 (24p)
C0JBAB000633 (8p)
C1AB00000166 (14p)



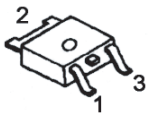
C0JBAZ002160 (14p)
C0JBAZ002161 (14p)



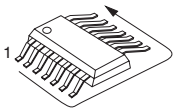
C0ABBB000297 (8p)



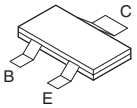
C0CBAAG00004 (3p)



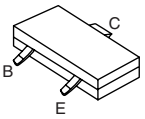
C1AB00001931 (16p)



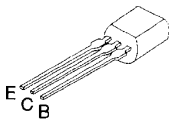
B1GDCFJN0001
B1ABDC000011
B1GBCFJJ0007



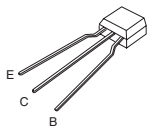
KRA110STA
KRC111STA
B1ABCE000016



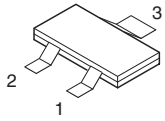
KTA12710YTA
B1AAKD000014



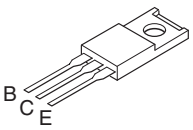
B1GACFJN0007



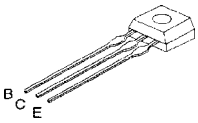
B1GDCFJJ0008



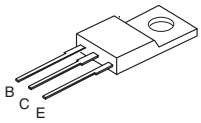
B1BACG000023
B1BCCG000023



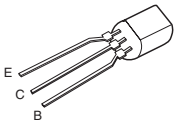
KTC3199GRTA



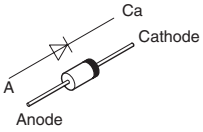
2SB1548PQAU



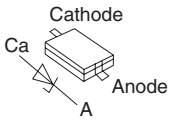
2SB0621AHA



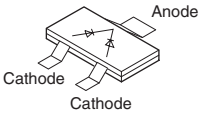
B0EAKM000117



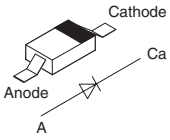
B0ECKM000016



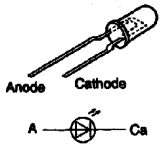
B0ADCJ000020



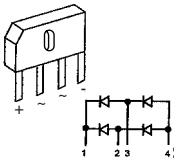
B0ACCE000003
MAZ80560ML
MAZ82200ML
MAZ80910ML



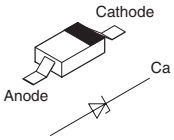
B3AAA0000383
B3ACA0000261



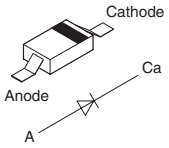
B0FBAM000010



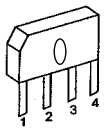
B0BC8R100004
MAZ80620ML



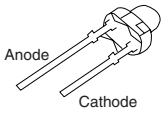
B0ACCK000005



MAZ80820ML



B3AEA0000058



17 Terminal Function of IC

17.1. IC900 (C2CBHG000166): Microprocessor

Pin No.	Terminal Name	I/O	Function
1-4	NC	-	No connection
5	VOL_CLK	O	Volume + Selector control
6	VOL_DT	O	Volume + Selector control
7	VOL_LT	O	Volume + Selector control
8	BYTE	-	GND
9	CNVss	-	CNVss
10	XCIN	I/O	Sub Clock Input (32.768 kHz)
11	XCOUT	I/O	Sub Clock Input (32.768 kHz)
12	RESET	C	Reset input pin for active "L"
13	XOUT	O	Clock Output [10.00 MHz]
14	VSS	-	GND
15	XIN	I/O	Clock input [10.00 MHz]
16	VCC1	-	Power source [5V]
17	NMI	-	Power source [5V]
18	FINT49	-	No Connection
19	REMOTE	I	Remote Control signal input
20	AC_SYNC	I	Power Failure Detection
21	MUTE_ALL	O	MUTE all Channel
22	MUTE_S/C	O	MUTE Surround Channel
23	NC	-	No Connection
24	TUNER_ST	I	NEW TUNER STEREO Detect
25	TUNER_SD	I	NEW TUNER SD Detect
26	DSP_OFF	O	Switch Off DSP Power
27	MUTE_HP	O	Head phone MUTE
28	SW_POWER	O	Amplifier Power Shut Down
29	TUNER_CLK	I/O	NEW TUNER (12C Clock)
30	TUNER_DT	I/O	NEW TUNER (12C Data)
31	CS49300_CDIN	O	DSP/CODEC serial Data IN (uP--> DSP/ CODEC)
32	CS49300_CDOUT	I	DSP serial DATA OUT (DSP--> uP)
33	CS49300_CCLK	O	DSP/ CODEC Clock
34	CS49300_CS	O	DSP Chip Select
35	CS49300_RESET	O	DSP RESET
36	RDS_DT	I	RDS IC Control: DATA
37	RDS_CLK	I	RDS IC Control: Clock
38	NC	-	No Connection
39	HAR_MUTE	O	Activate Harmonic Bass Function
40	HAR_LEVEL	O	Harmonic Bass Level Adjust
41-45	NC	-	No connection
46	VREF	-	Reference power supply [5V]
47	SURR_FC2	-	No Connection
48	NC	-	No Connection
49	FRONT_FC2	-	No Connection
50	NC	-	No Connection
51	PWR RELAY	O	Power Relay Control
52	NC	-	No Connection
53	ENCA	I	Volume Encoder Input A
54	ENCB	I	Volume Encoder Input B
55	HP_SW	I	Detect Headphone Connection
56	VOL_LED	O	Volume Encoder LED
57	NC	-	No Connection
58	DTS	O	DTS Decode LED
59	PLII	O	Pro Logic II Decode LED
60	D0	O	Dolby Digital Decode LED
61	HARMONIC_LED	O	Harmonic Bass LED
62	VCC2	-	Power sourde [5V]
63	NC	-	No Connection
64	Vss	-	GND
65-66	NC	-	No Connection
67	FL_RESET	O	FLD Dr RESET
68	FL_CS	O	FLD Dr CS
69	FL_CLK	O	FLD Dr serial clock
70	FL_DT	O	FLD Dr serial data
71-73	NC	-	No Connection
74	CS49300_INTREQ	I	DSP Interrupt Request
75	CS42516_INT	I	CODEC Interrupt Request
76	CS42516_CS	O	CODEC Chip Select
77	CS42516_CDOUT	I	CODEC Data OUT
78	CS42516_RESET	O	CODEC RESET
79	NC	-	No Connection
80	POWER_save	I	Power Key Detection
81	Key1	I	Key Input 1
82	Key2	I	Key Input 2
83	SPEC1_100HZ	I	Spectrum 100Hz Level
84	SPEC2_1KHZ	I	Spectrum 1kHz Level
85	SPEC3_10KHZ	I	Spectrum 10kHz Level
86	INIT2	I	INITIAL SETTING 2
87	INIT1	I	INITIAL SETTING 1
88	IN_Out	O	INITIAL SETTING OUTPUT
89	NC	-	No Connection
90	NC	-	No Connection
91	VIDEO_A	O	VIDEO Selector control
92	VIDEO_B	O	VIDEO Selector control
93	VIDEO_C	O	VIDEO Selector control
94	DC_DET	I	Fan Lock detection
95	S_DET	I	Power supply Short Detection
96	AVss	-	AVss
97	DIVIDER (SND)	C	Filter Setting
98	VREF	-	Reference power supply of the A/D converter [5V]
99	Avcc	-	Power source [5V]
100	NC	-	No Connection

18 Parts Location and Replacement Parts List

Notes:

- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.

  Furthermore, special parts which have purposes of fire-retardent (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.

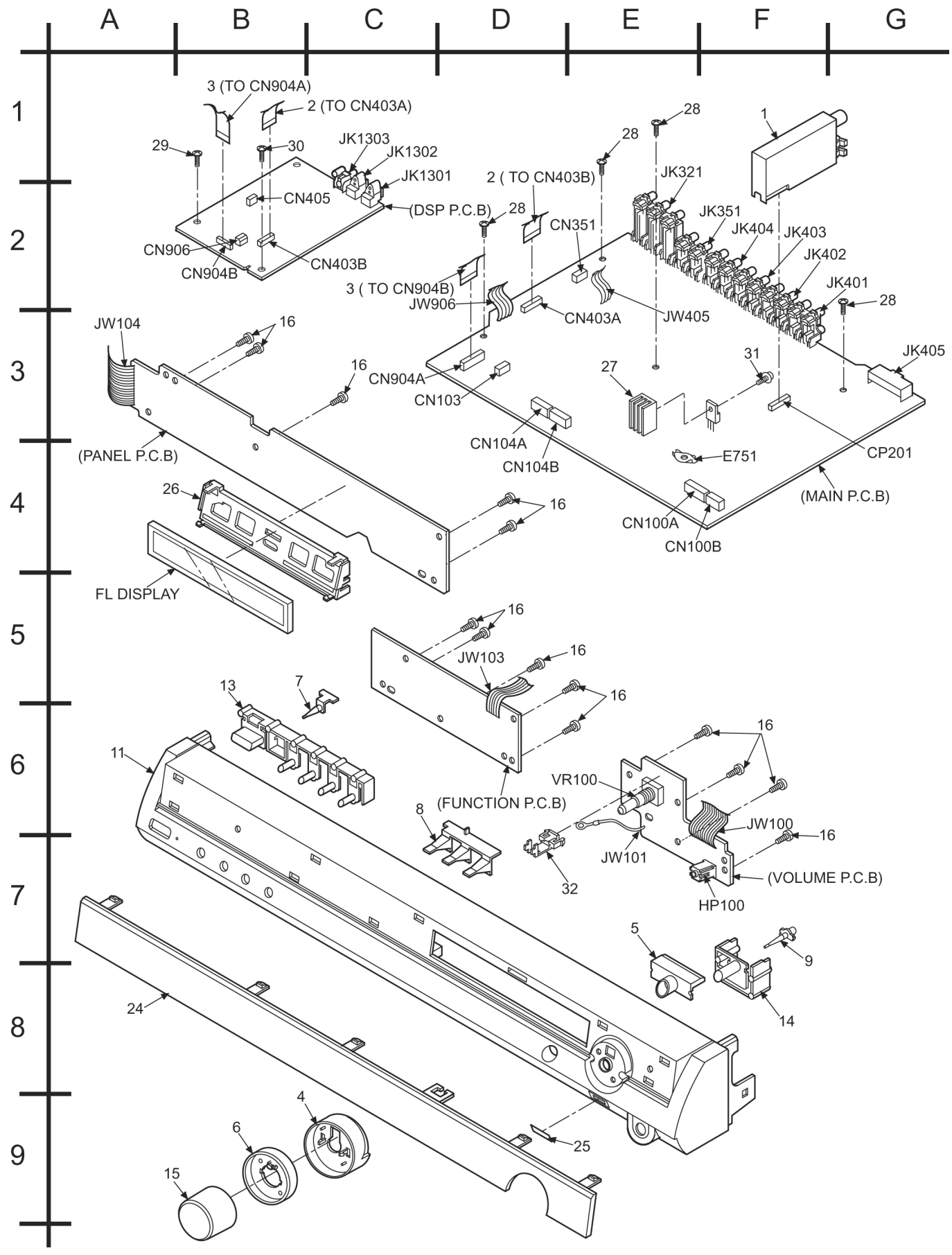
  When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)

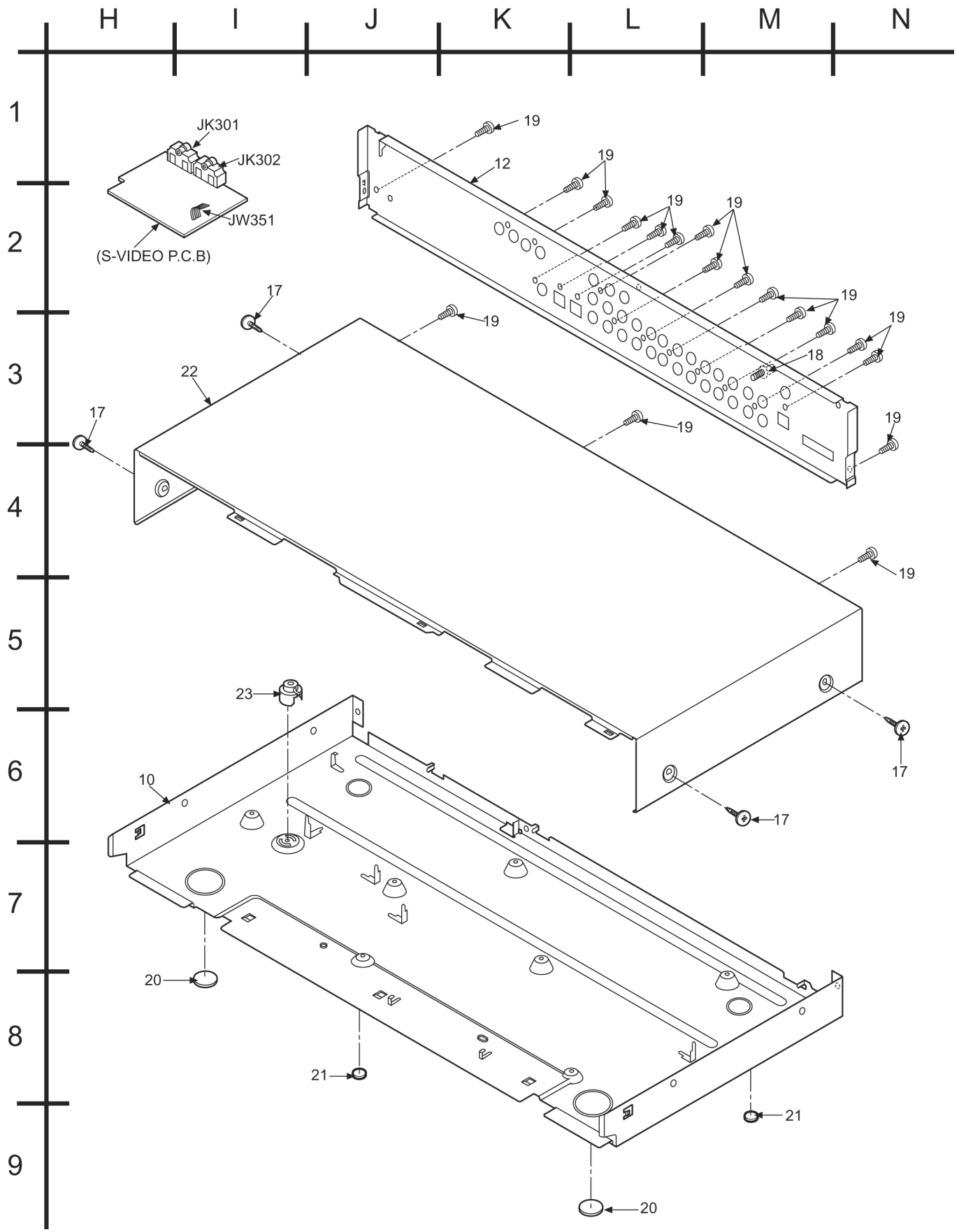
  Parts without these indications can be used for all areas.
- Capacitor values are in microfarads (μF) unless specified otherwise, P= Pico-farads (pF), F= Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
- The marking (RTL) indicates that the Retention Time is limited for this items. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of a availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- [M] Indicates in the Remarks columns indicates parts supplied by **PAVCSG.**
- Reference for O/I book languages are as follows:

Ar :	Arabic	Du :	Dutch	It :	Italian	Sp :	Spanish
Cf :	Canadian French	En :	English	Ko :	Korean	Sw :	Swedish
Cz :	Czech	Fr :	French	Po :	Polish	Co :	Traditional Chinese
Da :	Danish	Ge :	German	Ru :	Russian	Cn :	Simplified Chinese
Pe :	Persian	Ur:	Ukraine				

18.1. Cabinet Parts Location

18.1.1. Cabinet




H
I
J
K
L
M
N
1
2
3
4
5
6
7
8
9
JK301
JK302
JW351
(S-VIDEO P.C.B)
19
12
17
22
18
23
10
20
21

18.1.2. Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	ENG06811QF	TUNER PACK	[M]
2	REEV0083	16P FFC	[M]
3	REEV0084	18P FFC	[M]
4	RGKV0122-S	VOLUME RING	[M]
5	RGKV0123-W	H.BASS BUTTON RING	[M]
6	RGLV0055-Q	ILLUMINATION RING	[M]
7	RGLV0056-Q	LED LIGHT GUIDE	[M]
8	RGLV0057-Q	STANDBY LIGHT GUIDE	[M]
9	RGLV0058-Q	H. BASS LIGHT GUIDE	[M]
10	RFKJAHT17PPS	BOTTOM CHASSIS ASS'Y	[M]
11	RGPV0070-S	FRONT PANEL	[M]
12	RGRV0039B-A	REAR PANEL	[M]
13	RGUV0127-S	FUNCTION BUTTON	[M]
14	RGUV0128-S	H.BASS BUTTON	[M]
15	RFKDAHT17PPS	VOLUME KNOB ASS'Y	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
16	RHD26046-L	SCREW	[M]
17	RHD30007-1SJ	SCREW	[M]
18	RHD30070	EARTH TERMINAL	[M]
19	RHD30119-K	SCREW	[M]
20	RKAV0027-K	LEG RUBBER	[M]
21	RKAV0028-K	LEG CUSHION	[M]
22	RKMV0051-S	TOP CABINET	[M]
23	RKQV0001	PCB SPACER	[M]
24	RKWV0053-S	FL WINDOW	[M]
25	RKWV0052-S	REMOTE SENSOR WINDOW	[M]
26	RMNV0060-K	FL HOLDER	[M]
27	RMYV0048	POWER HEAT SINK	[M]
28	RHD30111	SCREW	[M]
29	XYA3+FJ12FJ	SCREW	[M]
30	XYB3+F8FJ	SCREW	[M]
31	XYN3+F8FJ	SCREW	[M]
32	RMNV0059	LED HOLDER	[M]

18.2. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUITS	
	REPV0060A-T	DSP P.C.B. (SIDE A & B)	[M](RTL)
	REPV0059D-M	MAIN P.C.B.	[M](RTL)
	REPV0059D-M	PANEL P.C.B.	[M](RTL)
	REPV0059D-M	VOLUME P.C.B.	[M](RTL)
	REPV0059D-M	FUNCTION P.C.B.	[M](RTL)
	REPV0059D-M	S-VIDEO P.C.B.	[M](RTL)
		INTEGRATED CIRCUITS	
IC100	C0HBB0000039	IC LOGIC	[M]
IC301	C1AB00000166	IC VIDEO SELECTOR SWITCH	[M]
IC302	C1AB00000166	IC VIDEO SELECTOR SWITCH	[M]
IC321	C1AB00001930	IC COMPONENT VIDEO SELECTOR	[M]
IC351	C1AB00001931	IC VIDEO SELECTOR	[M]
IC401	C0ABBB000297	IC OP AMP	[M]
IC402	C0ABBB000297	IC OP AMP	[M]
IC403	C0ABBB000297	IC OP AMP	[M]
IC404	C0ABBB000297	IC OP AMP	[M]
IC406	C0ABBB000297	IC OP AMP	[M]
IC407	C0ABBB000297	IC OP AMP	[M]
IC408	C0ABBB000297	IC OP AMP	[M]
IC409	C1BB00000919	IC SELECTOR VOLUME	[M]
IC900	C2CBHG000166	IC MICROPROCESSOR	[M]
IC901	C0ABBB000297	IC OP AMP	[M]
IC902	C0ABBB000297	IC OP AMP	[M]
IC1001	C2HBZZ000015	IC AC3/DTS	[M]
IC1003	C0JBAB000633	IC LOGIC INVERTER	[M]
IC1004	C0JBAZ002160	IC LOGIC	[M]
IC1005	C0JBAZ002161	IC LOGIC	[M]
IC1101	C0FBZK000009	IC CODEC	[M]
IC1201	C0ABBB000297	IC OP-AMP	[M]
IC1202	C0ABBB000297	IC OP-AMP	[M]
IC1203	C0ABBB000297	IC OP-AMP	[M]
IC1701	C0CBAAG00004	IC REGULATOR	[M]
		TRANSISTORS	
Q100	B1GBCFJJ0007	TRANSISTOR	[M]
Q101	B1GDCFJJ0008	TRANSISTOR	[M]
Q102	B1GDCFJJ0008	TRANSISTOR	[M]
Q103	B1GBCFJJ0007	TRANSISTOR	[M]
Q104	B1GBCFJJ0007	TRANSISTOR	[M]
Q105	B1GBCFJJ0007	TRANSISTOR	[M]
Q106	B1GBCFJJ0007	TRANSISTOR	[M]
Q107	B1GBCFJJ0007	TRANSISTOR	[M]
Q351	2SB0621AHA	TRANSISTOR	[M]
Q352	B1AAKD000014	TRANSISTOR	[M]
Q401	B1ABDC000011	TRANSISTOR	[M]
Q402	B1ABDC000011	TRANSISTOR	[M]
Q404	B1ABDC000011	TRANSISTOR	[M]
Q405	B1ABDC000011	TRANSISTOR	[M]
Q406	B1ABDC000011	TRANSISTOR	[M]
Q407	B1ABDC000011	TRANSISTOR	[M]
Q408	B1ABDC000011	TRANSISTOR	[M]
Q409	B1ABDC000011	TRANSISTOR	[M]
Q410	B1ABDC000011	TRANSISTOR	[M]
Q411	B1ABDC000011	TRANSISTOR	[M]
Q412	B1ABDC000011	TRANSISTOR	[M]
Q420	B1GDCFJJ0008	TRANSISTOR	[M]
Q421	B1GDCFJJ0008	TRANSISTOR	[M]
Q422	B1GDCFJJ0008	TRANSISTOR	[M]
Q423	B1GDCFJJ0008	TRANSISTOR	[M]
Q424	B1GDCFJJ0008	TRANSISTOR	[M]
Q701	B1ABDC000011	TRANSISTOR	[M]
Q702	B1ABDC000011	TRANSISTOR	[M]
Q703	B1GDCFJJ0008	TRANSISTOR	[M]
Q704	B1GDCFJJ0008	TRANSISTOR	[M]
Q751	KRC111STA	TRANSISTOR	[M]
Q752	KTA12710YTA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q753	B1AAKD000014	TRANSISTOR	[M]
Q754	B1BACG000023	TRANSISTOR	[M]
Q755	2SB1548PQAU	TRANSISTOR	[M]
Q756	B1BACG000023	TRANSISTOR	[M]
Q757	B1BCCG000023	TRANSISTOR	[M]
Q758	B1ABCE000016	TRANSISTOR	[M]
Q759	KRA110STA	TRANSISTOR	[M]
Q901	B1GACFJN0007	TRANSISTOR	[M]
Q1001	B1GDCFJN0001	TRANSISTOR	[M]
Q1701	KTC3199GRTA	TRANSISTOR	[M]
Q1702	B1BACG000023	TRANSISTOR	[M]
Q1703	B1BACG000023	TRANSISTOR	[M]
		DIODES	
D100	B3AEA0000058	DIODE	[M]
D101	B0ACCK000005	DIODE	[M]
D102	B3AAA0000383	DIODE	[M]
D103	B3ACA0000261	DIODE	[M]
D104	B3ACA0000261	DIODE	[M]
D105	B3ACA0000261	DIODE	[M]
D106	B3ACA0000261	DIODE	[M]
D107	MAZ80560ML	DIODE	[M]
D301	B0ACCK000005	DIODE	[M]
D302	B0ACCK000005	DIODE	[M]
D351	B0ACCK000005	DIODE	[M]
D352	B0ACCK000005	DIODE	[M]
D353	MAZ80560ML	DIODE	[M]
D354	MAZ80560ML	DIODE	[M]
D701	B0ACCK000005	DIODE	[M]
D750	B0FBAM000010	DIODE	[M]
D751	B0EAKM000117	DIODE	[M]
D752	B0EAKM000117	DIODE	[M]
D753	B0EAKM000117	DIODE	[M]
D754	B0EAKM000117	DIODE	[M]
D755	B0EAKM000117	DIODE	[M]
D756	B0EAKM000117	DIODE	[M]
D757	MAZ80560ML	DIODE	[M]
D758	B0ACCK000005	DIODE	[M]
D759	MAZ80820ML	DIODE	[M]
D760	MAZ82200ML	DIODE	[M]
D761	MAZ80910ML	DIODE	[M]
D762	B0ECKM000016	DIODE	[M]
D763	B0ECKM000016	DIODE	[M]
D764	B0ADCJ000020	DIODE	[M]
D765	B0ACCK000005	DIODE	[M]
D766	MAZ80820ML	DIODE	[M]
D767	B0BC8R100004	DIODE	[M]
D768	B0ACCK000005	DIODE	[M]
D901	B0ACCE000003	DIODE	[M]
D902	B0ACCE000003	DIODE	[M]
D903	B0ACCK000005	DIODE	[M]
D904	B0ACCK000005	DIODE	[M]
D921	B0ACCK000005	DIODE	[M]
D922	B0ACCK000005	DIODE	[M]
D923	B0ACCK000005	DIODE	[M]
D924	MAZ80560ML	DIODE	[M]
D925	MAZ80560ML	DIODE	[M]
D926	MAZ80560ML	DIODE	[M]
D1701	MAZ80620ML	DIODE	[M]
		VARIABLE RESISTOR	
VR100	EVEJ1D42124B	VR JOG VOLUME	[M]
		SWITCHES	
S100	EVQ21405RJ	SW POWER	[M]
S101	EVQ21405RJ	SW MEMORY	[M]
S102	EVQ21405RJ	SW TUNE UP	[M]
S103	EVQ21405RJ	SW INPUT SELECTOR	[M]
S104	EVQ21405RJ	SW TUNE DOWN	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
S105	EVQ21405RJ	SW H.BASS	[M]
		CONNECTORS	
CN100A	K1MP07A00002	7P CONNECTOR	[M]
CN100B	K1MP04A00007	4P CONNECTOR	[M]
CN103	K1MP06A00012	6P TAPING CONNECTOR	[M]
CN104A	K1MP07A00006	7P TAPING CONNECTOR	[M]
CN104B	K1MP07A00006	7P TAPING CONNECTOR	[M]
CN351	K1MP06A00012	6P TAPING CONNECTOR	[M]
CN403A	K1MN16A00073	16P CONNECTOR	[M]
CN403B	K1MN16A00073	16P CONNECTOR	[M]
CN405	K1MP03A00012	3P CONNECTOR	[M]
CN904A	K1MN18A00046	18P CONNECTOR	[M]
CN904B	K1MN18A00046	18P CONNECTOR	[M]
CN906	K1MP04A00007	4P CONNECTOR	[M]
CP201	K1KA10AA0031	10P CONNECTOR	[M]
		COILS	
L100	J0JBC0000019	CHIP INDUCTOR	[M]
L101	J0JBC0000019	CHIP INDUCTOR	[M]
L102	J0JBC0000019	CHIP INDUCTOR	[M]
L1001	G1C2R2K00008	CHIP INDUCTOR	[M]
L1002	G1C2R2K00008	CHIP INDUCTOR	[M]
L1003	G1C2R2K00008	CHIP INDUCTOR	[M]
L1004	G1C2R2K00008	CHIP INDUCTOR	[M]
L1101	G1C2R2K00008	CHIP INDUCTOR	[M]
L1102	G1C2R2K00008	CHIP INDUCTOR	[M]
L1103	G1C2R2K00008	CHIP INDUCTOR	[M]
L1301	RLQZ150M-0	CHOKE COIL	[M]
L1302	VLQ0855M1R0T	CHIP INDUCTOR	[M]
		COMPONENT COMBINATIONS	
Z100	B3RAD0000080	REMOTE SENSOR	[M]
Z1101	J0JKB0000020	EMI BEAD CORE	[M]
		CERAMIC FILTER	
CF901	H2A100500006	10MHZ RESONATOR	[M]
		OSCILLATOR	
X1001	H0J122200002	CYRSTAL	[M]
		DISPLAY TUBE	
FL100	A2BB00000148	FL DISPLAY	[M]
		FUSE HOLDERS	
FP751	K5G202A00025	FUSE PROTECTOR	[M] ⚠
FP752	K5G402A00025	FUSE PROTECTOR	[M] ⚠
		FUSE PROTECTOR	
HP100	K2HC103A0024	JK HP	[M]
		JACKS	
JK301	K1CB208B0010	JK S VIDEO TERMINAL	[M]
JK302	K1CB208B0010	JK S VIDEO TERMINAL	[M]
JK321	K4BK09H00002	JK 9P RCA	[M]
JK351	K2HA408B0076	JK 4P RCA	[M]
JK401	K4BK04H00013	JK 4P RCA	[M]
JK402	K4BK04H00025	JK 4P RCA	[M]
JK403	K4BK04H00013	JK 4P RCA	[M]
JK404	K2HA408B0082	JK 4P RCA	[M]
JK405	K1FB125B0097	JK 25P	[M]
JK1301	B3RAB0000048	JK OPTICAL	[M]
JK1302	B3RAB0000048	JK OPTICAL	[M]
JK1303	K4BK01H00010	JK COAX INPUT	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		EARTH TERMINAL	
E751	SNE1004-2	EARTH TERMINAL	[M]
		CHIP RESISTORS	
W1	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3	ERJ3GEY0R00V	CHIP JUMPER	[M]
W4	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6	ERJ3GEY0R00V	CHIP JUMPER	[M]
W7	ERJ3GEY0R00V	CHIP JUMPER	[M]
W8	ERJ3GEY0R00V	CHIP JUMPER	[M]
W9	ERJ3GEY0R00V	CHIP JUMPER	[M]
W10	ERJ3GEY0R00V	CHIP JUMPER	[M]
W11	ERJ3GEY0R00V	CHIP JUMPER	[M]
W12	ERJ3GEY0R00V	CHIP JUMPER	[M]
W13	ERJ3GEY0R00V	CHIP JUMPER	[M]
W14	ERJ3GEY0R00V	CHIP JUMPER	[M]
W15	ERJ3GEY0R00V	CHIP JUMPER	[M]
W16	ERJ3GEY0R00V	CHIP JUMPER	[M]
W19	ERJ3GEY0R00V	CHIP JUMPER	[M]
W20	ERJ3GEY0R00V	CHIP JUMPER	[M]
W21	ERJ3GEY0R00V	CHIP JUMPER	[M]
W22	ERJ3GEY0R00V	CHIP JUMPER	[M]
W23	ERJ3GEY0R00V	CHIP JUMPER	[M]
W24	ERJ3GEY0R00V	CHIP JUMPER	[M]
W25	ERJ3GEY0R00V	CHIP JUMPER	[M]
W26	ERJ3GEY0R00V	CHIP JUMPER	[M]
W27	ERJ3GEY0R00V	CHIP JUMPER	[M]
W28	ERJ3GEY0R00V	CHIP JUMPER	[M]
W29	ERJ3GEY0R00V	CHIP JUMPER	[M]
W30	ERJ3GEY0R00V	CHIP JUMPER	[M]
W31	ERJ3GEY0R00V	CHIP JUMPER	[M]
W32	ERJ3GEY0R00V	CHIP JUMPER	[M]
W33	ERJ3GEY0R00V	CHIP JUMPER	[M]
W34	ERJ3GEY0R00V	CHIP JUMPER	[M]
W35	ERJ3GEY0R00V	CHIP JUMPER	[M]
W36	ERJ3GEY0R00V	CHIP JUMPER	[M]
W37	ERJ3GEY0R00V	CHIP JUMPER	[M]
W38	ERJ3GEY0R00V	CHIP JUMPER	[M]
W39	ERJ3GEY0R00V	CHIP JUMPER	[M]
W40	ERJ3GEY0R00V	CHIP JUMPER	[M]
W42	ERJ3GEY0R00V	CHIP JUMPER	[M]
W43	ERJ3GEY0R00V	CHIP JUMPER	[M]
W44	ERJ3GEY0R00V	CHIP JUMPER	[M]
W45	ERJ3GEY0R00V	CHIP JUMPER	[M]
W46	ERJ3GEY0R00V	CHIP JUMPER	[M]
W47	ERJ3GEY0R00V	CHIP JUMPER	[M]
W48	ERJ3GEY0R00V	CHIP JUMPER	[M]
W49	ERJ3GEY0R00V	CHIP JUMPER	[M]
W50	ERJ3GEY0R00V	CHIP JUMPER	[M]
W51	ERJ3GEY0R00V	CHIP JUMPER	[M]
W52	ERJ3GEY0R00V	CHIP JUMPER	[M]
W53	ERJ3GEY0R00V	CHIP JUMPER	[M]
W54	ERJ3GEY0R00V	CHIP JUMPER	[M]
W55	ERJ3GEY0R00V	CHIP JUMPER	[M]
W56	ERJ3GEY0R00V	CHIP JUMPER	[M]
W57	ERJ3GEY0R00V	CHIP JUMPER	[M]
W58	ERJ3GEY0R00V	CHIP JUMPER	[M]
W59	ERJ3GEY0R00V	CHIP JUMPER	[M]
W60	ERJ3GEY0R00V	CHIP JUMPER	[M]
W61	ERJ3GEY0R00V	CHIP JUMPER	[M]
W62	ERJ3GEY0R00V	CHIP JUMPER	[M]
W63	ERJ3GEY0R00V	CHIP JUMPER	[M]
W64	ERJ3GEY0R00V	CHIP JUMPER	[M]
W65	ERJ3GEY0R00V	CHIP JUMPER	[M]
W66	ERJ3GEY0R00V	CHIP JUMPER	[M]
W67	ERJ3GEY0R00V	CHIP JUMPER	[M]
W68	ERJ3GEY0R00V	CHIP JUMPER	[M]
W69	ERJ3GEY0R00V	CHIP JUMPER	[M]
W70	ERJ3GEY0R00V	CHIP JUMPER	[M]
W71	ERJ3GEY0R00V	CHIP JUMPER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W72	ERJ3GEY0R00V	CHIP JUMPER	[M]
W73	ERJ3GEY0R00V	CHIP JUMPER	[M]
W74	ERJ3GEY0R00V	CHIP JUMPER	[M]
W76	ERJ3GEY0R00V	CHIP JUMPER	[M]
W77	ERJ3GEY0R00V	CHIP JUMPER	[M]
W78	ERJ3GEY0R00V	CHIP JUMPER	[M]
W79	ERJ3GEY0R00V	CHIP JUMPER	[M]
W80	ERJ3GEY0R00V	CHIP JUMPER	[M]
W81	ERJ3GEY0R00V	CHIP JUMPER	[M]
W82	ERJ3GEY0R00V	CHIP JUMPER	[M]
W83	ERJ3GEY0R00V	CHIP JUMPER	[M]
		WIRES	
JW100	RWJ1811120SQ	11P WIRE	[M]
JW101	REZV0001	EARTH WIRE	[M]
JW103	RWJ1806160SQ	6P (PWR TO DIG)	[M]
JW104	RWJ1814200SQ	14P WIRE	[M]
JW351	RWJ1806090SQ	6P FLAT WIRE	[M]
JW405	RWJ1803180SQ	JUMPER WIRE	[M]
JW906	RWJ1804130SQ	4P WIRE	[M]
		RESISTORS	
R100	D0GB220JA007	22 1/16W	[M]
R101	D0GB222JA041	2.2K 1/16W	[M]
R102	D0GB332JA007	3.3K 1/16W	[M]
R103	D0GB222JA041	2.2K 1/16W	[M]
R104	ERJ3GEYJ822V	8.2K 1/16W	[M]
R105	D0GB271JA007	270 1/16W	[M]
R106	D0GB104JA007	100K 1/16W	[M]
R107	ERJ3GEYJ102V	1K 1/16W	[M]
R108	ERJ3GEYJ102V	1K 1/16W	[M]
R109	ERJ3GEYJ102V	1K 1/16W	[M]
R110	ERJ3GEYJ102V	1K 1/16W	[M]
R111	D0GB153JA007	15K 1/16W	[M]
R112	D0GB101JA007	100 1/16W	[M]
R113	D0GB101JA007	100 1/16W	[M]
R131	D0GB151JA007	150 1/16W	[M]
R132	D0GB151JA007	150 1/16W	[M]
R133	D0GB151JA007	150 1/16W	[M]
R134	D0GB151JA007	150 1/16W	[M]
R201	ERJ3GEYJ102V	1K 1/16W	[M]
R202	ERJ3GEYJ102V	1K 1/16W	[M]
R203	D0GB473JA041	47K 1/16W	[M]
R204	D0GB473JA041	47K 1/16W	[M]
R301	ERJ3GEYJ750V	75 1/16W	[M]
R302	ERJ3GEYJ750V	75 1/16W	[M]
R303	ERJ3GEYJ750V	75 1/16W	[M]
R304	D0GB104JA007	100K 1/16W	[M]
R305	D0GB104JA007	100K 1/16W	[M]
R306	D0GB104JA007	100K 1/16W	[M]
R307	ERJ3GEYJ750V	75 1/16W	[M]
R308	ERJ3GEYJ750V	75 1/16W	[M]
R309	ERJ3GEYJ103V	10K 1/16W	[M]
R310	ERJ3GEYJ103V	10K 1/16W	[M]
R311	ERJ3GEYJ103V	10K 1/16W	[M]
R312	ERJ3GEYJ750V	75 1/16W	[M]
R313	ERJ3GEYJ750V	75 1/16W	[M]
R314	ERJ3GEYJ750V	75 1/16W	[M]
R315	ERJ3GEYJ750V	75 1/16W	[M]
R316	ERJ3GEYJ750V	75 1/16W	[M]
R317	ERJ3GEYJ102V	1K 1/16W	[M]
R318	ERJ3GEYJ102V	1K 1/16W	[M]
R321	ERJ3GEYJ750V	75 1/16W	[M]
R322	ERJ3GEYJ750V	75 1/16W	[M]
R323	ERJ3GEYJ750V	75 1/16W	[M]
R324	ERJ3GEYJ750V	75 1/16W	[M]
R325	ERJ3GEYJ750V	75 1/16W	[M]
R326	ERJ3GEYJ750V	75 1/16W	[M]
R327	ERJ3GEYJ750V	75 1/16W	[M]
R328	ERJ3GEYJ750V	75 1/16W	[M]
R329	ERJ3GEYJ750V	75 1/16W	[M]
R330	ERJ3GEYJ102V	1K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R331	ERJ3GEYJ102V	1K 1/16W	[M]
R332	ERJ3GEYJ102V	1K 1/16W	[M]
R351	ERJ3GEYJ750V	75 1/16W	[M]
R352	ERJ3GEYJ750V	75 1/16W	[M]
R353	ERJ3GEYJ750V	75 1/16W	[M]
R354	ERJ3GEYJ750V	75 1/16W	[M]
R355	ERJ3GEYJ750V	75 1/16W	[M]
R356	ERJ3GEYJ750V	75 1/16W	[M]
R357	ERJ3GEYJ103V	10K 1/16W	[M]
R358	ERJ3GEYJ103V	10K 1/16W	[M]
R359	ERJ3GEYJ103V	10K 1/16W	[M]
R360	ERJ3GEYJ103V	10K 1/16W	[M]
R361	ERJ3GEYJ102V	1K 1/16W	[M]
R362	ERJ3GEYJ102V	1K 1/16W	[M]
R363	ERJ3GEYJ102V	1K 1/16W	[M]
R364	ERD2FCVG220T	22 1/4W	[M]
R365	D0GB182JA007	1.8K 1/16W	[M]
R366	D0GB182JA007	1.8K 1/16W	[M]
R367	ERD2FCVG220T	22 1/4W	[M]
R401	ERJ3GEYJ102V	1K 1/16W	[M]
R402	ERJ3GEYJ102V	1K 1/16W	[M]
R403	ERJ3GEYJ102V	1K 1/16W	[M]
R404	ERJ3GEYJ102V	1K 1/16W	[M]
R405	ERJ3GEYJ102V	1K 1/16W	[M]
R406	ERJ3GEYJ102V	1K 1/16W	[M]
R407	ERJ3GEYJ102V	1K 1/16W	[M]
R408	ERJ3GEYJ102V	1K 1/16W	[M]
R409	ERJ3GEYJ102V	1K 1/16W	[M]
R410	ERJ3GEYJ102V	1K 1/16W	[M]
R411	ERJ3GEYJ102V	1K 1/16W	[M]
R412	ERJ3GEYJ102V	1K 1/16W	[M]
R413	ERJ3GEYJ102V	1K 1/16W	[M]
R414	ERJ3GEYJ102V	1K 1/16W	[M]
R419	ERJ3GEYJ102V	1K 1/16W	[M]
R420	ERJ3GEYJ102V	1K 1/16W	[M]
R421	ERJ3GEYJ102V	1K 1/16W	[M]
R422	ERJ3GEYJ102V	1K 1/16W	[M]
R425	ERJ3GEYJ684V	680K 1/16W	[M]
R426	ERJ3GEYJ822V	8.2K 1/16W	[M]
R428	ERJ3GEYJ103V	10K 1/16W	[M]
R429	ERJ3GEYJ822V	8.2K 1/16W	[M]
R430	ERJ3GEYJ102V	1K 1/16W	[M]
R431	ERJ3GEYJ102V	1K 1/16W	[M]
R432	ERJ3GEYJ102V	1K 1/16W	[M]
R433	ERJ3GEYJ102V	1K 1/16W	[M]
R435	ERJ3GEYJ102V	1K 1/16W	[M]
R436	D0GB393JA041	39K 1/16W	[M]
R437	D0GB473JA041	47K 1/16W	[M]
R438	ERJ3GEYJ102V	1K 1/16W	[M]
R439	ERJ3GEYJ102V	1K 1/16W	[M]
R440	ERJ3GEYJ102V	1K 1/16W	[M]
R441	ERJ3GEYJ102V	1K 1/16W	[M]
R442	D0GB562JA007	5.6K 1/16W	[M]
R443	D0GB562JA007	5.6K 1/16W	[M]
R444	D0GB472JA041	4.7K 1/16W	[M]
R445	D0GB472JA041	4.7K 1/16W	[M]
R446	D0GB393JA041	39K 1/16W	[M]
R447	D0GB393JA041	39K 1/16W	[M]
R448	D0GB562JA007	5.6K 1/16W	[M]
R449	D0GB562JA007	5.6K 1/16W	[M]
R451	ERJ3GEYJ102V	1K 1/16W	[M]
R453	D0GB224JA007	220K 1/16W	[M]
R454	D0GB393JA041	39K 1/16W	[M]
R455	D0GB563JA007	56K 1/16W	[M]
R456	D0GB563JA007	56K 1/16W	[M]
R457	ERJ3GEYJ102V	1K 1/16W	[M]
R458	ERJ3GEYJ102V	1K 1/16W	[M]
R459	ERJ3GEYJ102V	1K 1/16W	[M]
R460	D0GB220JA007	22 1/16W	[M]
R461	D0GB220JA007	22 1/16W	[M]
R462	D0GB220JA007	22 1/16W	[M]
R463	D0GB471JA041	470 1/16W	[M]
R464	D0GB220JA007	22 1/16W	[M]
R465	D0GB471JA041	470 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R466	D0GB151JA007	150 1/16W	[M]
R468	D0GB151JA007	150 1/16W	[M]
R469	D0GB151JA007	150 1/16W	[M]
R470	D0GB151JA007	150 1/16W	[M]
R471	ERJ3GEYJ822V	8.2K 1/16W	[M]
R472	ERJ3GEYJ684V	680K 1/16W	[M]
R473	D0GB473JA041	47K 1/16W	[M]
R474	D0GB473JA041	47K 1/16W	[M]
R475	ERJ3GEYJ684V	680K 1/16W	[M]
R477	D0GB152JA007	1.5K 1/16W	[M]
R480	D0GB471JA041	470 1/16W	[M]
R481	D0GB100JA007	10 1/16W	[M]
R482	D0GB100JA007	10 1/16W	[M]
R483	D0GB224JA007	220K 1/16W	[M]
R484	D0GB224JA007	220K 1/16W	[M]
R485	D0GB224JA007	220K 1/16W	[M]
R486	D0GB224JA007	220K 1/16W	[M]
R487	D0GB473JA041	47K 1/16W	[M]
R488	D0GB473JA041	47K 1/16W	[M]
R489	D0GB473JA041	47K 1/16W	[M]
R491	ERJ3GEYJ103V	10K 1/16W	[M]
R492	ERJ3GEYJ103V	10K 1/16W	[M]
R493	ERJ3GEYJ103V	10K 1/16W	[M]
R496	D0GB471JA041	470 1/16W	[M]
R501	D0GB473JA041	47K 1/16W	[M]
R502	D0GB473JA041	47K 1/16W	[M]
R503	D0GB473JA041	47K 1/16W	[M]
R504	ERJ3GEYJ822V	8.2K 1/16W	[M]
R505	D0GB563JA007	56K 1/16W	[M]
R506	D0GB182JA007	1.8K 1/16W	[M]
R507	D0GB332JA007	3.3K 1/16W	[M]
R508	D0GB332JA007	3.3K 1/16W	[M]
R510	D0GB222JA041	2.2K 1/16W	[M]
R511	D0GB222JA041	2.2K 1/16W	[M]
R701	D0GB123JA007	12K 1/16W	[M]
R702	ERJ3GEYJ102V	1K 1/16W	[M]
R703	D0GB224JA007	220K 1/16W	[M]
R704	D0GB104JA007	100K 1/16W	[M]
R705	ERJ3GEYJ103V	10K 1/16W	[M]
R706	D0GB104JA007	100K 1/16W	[M]
R707	D0GB104JA007	100K 1/16W	[M]
R708	ERJ3GEYJ102V	1K 1/16W	[M]
R709	D0GB333JA007	33K 1/16W	[M]
R710	ERJ3GEYJ822V	8.2K 1/16W	[M]
R711	D0GB104JA007	100K 1/16W	[M]
R712	ERJ3GEYJ103V	10K 1/16W	[M]
R713	ERJ3GEYJ102V	1K 1/16W	[M]
R714	ERJ3GEYJ102V	1K 1/16W	[M]
R715	ERJ3GEYJ822V	8.2K 1/16W	[M]
R716	ERJ3GEYJ822V	8.2K 1/16W	[M]
R717	ERJ3GEYJ684V	680K 1/16W	[M]
R718	ERJ3GEYJ684V	680K 1/16W	[M]
R719	D0GB472JA041	4.7K 1/16W	[M]
R720	D0GB183JA007	18K 1/16W	[M]
R721	ERJ3GEYJ103V	10K 1/16W	[M]
R724	D0GB562JA007	5.6K 1/16W	[M]
R725	ERJ3GEYJ103V	10K 1/16W	[M]
R726	ERJ3GEYJ103V	10K 1/16W	[M]
R727	ERJ3GEYJ103V	10K 1/16W	[M]
R728	D0GB393JA041	39K 1/16W	[M]
R729	ERJ3GEYJ103V	10K 1/16W	[M]
R730	D0GB683JA007	68K 1/16W	[M]
R732	D0GB104JA007	100K 1/16W	[M]
R733	D0GB152JA007	1.5K 1/16W	[M]
R734	D0GB472JA041	4.7K 1/16W	[M]
R735	D0GB104JA007	100K 1/16W	[M]
R740	D0GB153JA007	15K 1/16W	[M]
R742	D0GB393JA041	39K 1/16W	[M]
R751	D0GB153JA007	15K 1/16W	[M]
R752	D0GB393JA041	39K 1/16W	[M]
R753	D0GB151JA007	150 1/16W	[M]
R754	D0GB472JA041	4.7K 1/16W	[M]
R755	D0GB151JA007	150 1/16W	[M]
R756	ERD2FCVJ4R7T	4.7 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R757	D0GB471JA041	470 1/16W	[M]
R758	D0GB101JA007	100 1/16W	[M]
R759	D0GB821JA007	820 1/16W	[M]
R760	ERJ3GEYJ102V	1K 1/16W	[M]
R761	D0GB331JA007	330 1/16W	[M]
R762	ERD2FCVJ4R7T	4.7 1/4W	[M]
R763	D0GB471JA041	470 1/16W	[M]
R764	D0GB182JA007	1.8K 1/16W	[M]
R765	ERJ3GEYJ103V	10K 1/16W	[M]
R766	ERJ3GEYJ122V	1.2K 1/16W	[M]
R767	D0GB1R0JA007	1 1/16W	[M]
R768	D0GB1R0JA007	1 1/16W	[M]
R769	D0GB1R0JA007	1 1/16W	[M]
R770	D0GB1R0JA007	1 1/16W	[M]
R771	D0GB1R0JA007	1 1/16W	[M]
R901	ERJ3GEY0R00V	0 1/16W	[M]
R902	ERJ3GEYJ103V	10K 1/16W	[M]
R904	ERJ3GEYJ103V	10K 1/16W	[M]
R905	ERJ3GEYJ103V	10K 1/16W	[M]
R906	D0GB273JA007	27K 1/16W	[M]
R907	D0GB472JA041	4.7K 1/16W	[M]
R908	D0GB104JA007	100K 1/16W	[M]
R909	ERJ3GEYJ102V	1K 1/16W	[M]
R910	ERJ3GEYJ103V	10K 1/16W	[M]
R911	ERJ3GEYJ103V	10K 1/16W	[M]
R912	ERJ3GEYJ103V	10K 1/16W	[M]
R913	ERJ3GEYJ103V	10K 1/16W	[M]
R914	ERJ3GEYJ103V	10K 1/16W	[M]
R915	ERJ3GEYJ103V	10K 1/16W	[M]
R916	D0GB333JA007	33K 1/16W	[M]
R917	ERJ3GEYJ102V	1K 1/16W	[M]
R918	ERJ3GEYJ103V	10K 1/16W	[M]
R919	ERJ3GEYJ102V	1K 1/16W	[M]
R920	D0GB331JA007	330 1/16W	[M]
R921	D0GB220JA007	22 1/16W	[M]
R922	D0GB274JA007	270K 1/16W	[M]
R924	ERJ3GEYJ102V	1K 1/16W	[M]
R925	D0GB153JA007	15K 1/16W	[M]
R926	ERJ3GEYJ102V	1K 1/16W	[M]
R928	D0GB124JA007	120K 1/16W	[M]
R929	D0GB124JA007	120K 1/16W	[M]
R930	D0GB472JA041	4.7K 1/16W	[M]
R933	ERJ3GEYJ103V	10K 1/16W	[M]
R934	ERJ3GEYJ103V	10K 1/16W	[M]
R935	ERJ3GEYJ103V	10K 1/16W	[M]
R936	ERJ3GEYJ103V	10K 1/16W	[M]
R937	ERJ3GEYJ103V	10K 1/16W	[M]
R938	D0GB153JA007	15K 1/16W	[M]
R940	ERJ3GEYJ103V	10K 1/16W	[M]
R941	D0GB473JA041	47K 1/16W	[M]
R943	D0GB392JA041	3.9K 1/16W	[M]
R944	D0GB153JA007	15K 1/16W	[M]
R945	D0GB223JA041	22K 1/16W	[M]
R946	D0GB153JA007	15K 1/16W	[M]
R947	D0GB473JA041	47K 1/16W	[M]
R948	D0GB473JA041	47K 1/16W	[M]
R949	D0GB473JA041	47K 1/16W	[M]
R953	ERJ3GEYJ102V	1K 1/16W	[M]
R954	ERJ3GEYJ102V	1K 1/16W	[M]
R955	ERJ3GEYJ102V	1K 1/16W	[M]
R956	ERJ3GEYJ102V	1K 1/16W	[M]
R982	ERJ3GEYJ103V	10K 1/16W	[M]
R983	ERJ3GEYJ103V	10K 1/16W	[M]
R984	ERJ3GEYJ103V	10K 1/16W	[M]
R991	D0GB153JA007	15K 1/16W	[M]
R992	D0GB153JA007	15K 1/16W	[M]
R993	ERJ3GEYJ750V	75 1/16W	[M]
R994	ERJ3GEYJ750V	75 1/16W	[M]
R995	ERJ3GEYJ750V	75 1/16W	[M]
R997	ERJ3GEYJ103V	10K 1/16W	[M]
R1001	D0GB332JA007	3.3K 1/16W	[M]
R1002	D0GB332JA007	3.3K 1/16W	[M]
R1003	ERJ3GEYJ103V	10K 1/16W	[M]
R1004	D0GB332JA007	3.3K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R1005	D0GB332JA007	3.3K 1/16W	[M]
R1006	ERJ3GEYJ103V	10K 1/16W	[M]
R1007	ERJ3GEYJ103V	10K 1/16W	[M]
R1008	ERJ3GEYJ103V	10K 1/16W	[M]
R1009	ERJ3GEYJ103V	10K 1/16W	[M]
R1010	ERJ3GEYJ103V	10K 1/16W	[M]
R1011	ERJ3GEYJ103V	10K 1/16W	[M]
R1012	ERJ3GEYJ103V	10K 1/16W	[M]
R1013	ERJ3GEYJ103V	10K 1/16W	[M]
R1014	ERJ3GEYJ103V	10K 1/16W	[M]
R1015	D0GB472JA041	4.7K 1/16W	[M]
R1016	D0GB333JA007	33K 1/16W	[M]
R1017	D0GB472JA041	4.7K 1/16W	[M]
R1018	D0GB330JA007	33 1/16W	[M]
R1019	ERJ3GEYJ102V	1K 1/16W	[M]
R1020	ERJ3GEYJ102V	1K 1/16W	[M]
R1021	ERJ3GEYJ102V	1K 1/16W	[M]
R1022	ERJ3GEYJ102V	1K 1/16W	[M]
R1023	D0GB105JA007	1M 1/16W	[M]
R1024	ERJ3GEYJ102V	1K 1/16W	[M]
R1025	ERJ3GEY0R00V	0 1/16W	[M]
R1026	D0GB104JA007	100K 1/16W	[M]
R1027	D0GB104JA007	100K 1/16W	[M]
R1028	D0GB330JA007	33 1/16W	[M]
R1029	ERJ3GEYJ102V	1K 1/16W	[M]
R1030	ERJ3GEYJ102V	1K 1/16W	[M]
R1101	ERJ3GEY0R00V	0 1/16W	[M]
R1106	D0GB332JA007	3.3K 1/16W	[M]
R1108	ERJ3GEY0R00V	0 1/16W	[M]
R1109	ERJ3GEY0R00V	0 1/16W	[M]
R1110	ERJ3GEY0R00V	0 1/16W	[M]
R1111	D0GB104JA007	100K 1/16W	[M]
R1112	ERJ3GEY0R00V	0 1/16W	[M]
R1113	ERJ3GEY0R00V	0 1/16W	[M]
R1114	ERJ3GEYJ122V	1.2K 1/16W	[M]
R1115	ERJ3GEYJ122V	1.2K 1/16W	[M]
R1116	ERJ3GEYJ122V	1.2K 1/16W	[M]
R1117	ERJ3GEYJ122V	1.2K 1/16W	[M]
R1118	D0GB152JA007	1.5K 1/16W	[M]
R1119	D0GB152JA007	1.5K 1/16W	[M]
R1120	D0GB152JA007	1.5K 1/16W	[M]
R1121	D0GB152JA007	1.5K 1/16W	[M]
R1122	D0GB272JA041	2.7K 1/16W	[M]
R1123	D0GB332JA007	3.3K 1/16W	[M]
R1124	D0GB332JA007	3.3K 1/16W	[M]
R1125	D0GB272JA041	2.7K 1/16W	[M]
R1201	D0GB562JA007	5.6K 1/16W	[M]
R1202	D0GB562JA007	5.6K 1/16W	[M]
R1203	D0GB562JA007	5.6K 1/16W	[M]
R1204	D0GB562JA007	5.6K 1/16W	[M]
R1205	D0GB562JA007	5.6K 1/16W	[M]
R1206	D0GB562JA007	5.6K 1/16W	[M]
R1207	D0GB152JA007	1.5K 1/16W	[M]
R1208	D0GB152JA007	1.5K 1/16W	[M]
R1209	D0GB152JA007	1.5K 1/16W	[M]
R1210	D0GB152JA007	1.5K 1/16W	[M]
R1211	D0GB152JA007	1.5K 1/16W	[M]
R1212	D0GB152JA007	1.5K 1/16W	[M]
R1213	D0GB152JA007	1.5K 1/16W	[M]
R1214	D0GB152JA007	1.5K 1/16W	[M]
R1215	D0GB152JA007	1.5K 1/16W	[M]
R1216	D0GB152JA007	1.5K 1/16W	[M]
R1217	D0GB152JA007	1.5K 1/16W	[M]
R1218	D0GB152JA007	1.5K 1/16W	[M]
R1219	ERJ3GEYJ102V	1K 1/16W	[M]
R1220	ERJ3GEYJ102V	1K 1/16W	[M]
R1221	ERJ3GEYJ102V	1K 1/16W	[M]
R1222	ERJ3GEYJ102V	1K 1/16W	[M]
R1223	ERJ3GEYJ102V	1K 1/16W	[M]
R1224	ERJ3GEYJ102V	1K 1/16W	[M]
R1225	D0GB272JA041	2.7K 1/16W	[M]
R1226	D0GB562JA007	5.6K 1/16W	[M]
R1227	D0GB272JA041	2.7K 1/16W	[M]
R1228	D0GB562JA007	5.6K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R1229	D0GB272JA041	2.7K 1/16W	[M]
R1230	D0GB562JA007	5.6K 1/16W	[M]
R1231	D0GB562JA007	5.6K 1/16W	[M]
R1232	D0GB272JA041	2.7K 1/16W	[M]
R1233	D0GB562JA007	5.6K 1/16W	[M]
R1234	D0GB272JA041	2.7K 1/16W	[M]
R1235	D0GB562JA007	5.6K 1/16W	[M]
R1236	D0GB272JA041	2.7K 1/16W	[M]
R1237	D0GB473JA041	47K 1/16W	[M]
R1238	D0GB473JA041	47K 1/16W	[M]
R1239	D0GB473JA041	47K 1/16W	[M]
R1240	D0GB473JA041	47K 1/16W	[M]
R1241	D0GB473JA041	47K 1/16W	[M]
R1242	D0GB473JA041	47K 1/16W	[M]
R1301	ERJ3GEYJ750V	75 1/16W	[M]
R1302	D0GB100JA007	10 1/16W	[M]
R1303	D0GB100JA007	10 1/16W	[M]
R1401	ERJ3GEY0R00V	0 1/16W	[M]
R1402	ERJ3GEY0R00V	0 1/16W	[M]
R1403	ERJ3GEY0R00V	0 1/16W	[M]
R1404	ERJ3GEY0R00V	0 1/16W	[M]
R1405	ERJ3GEY0R00V	0 1/16W	[M]
R1406	ERJ3GEY0R00V	0 1/16W	[M]
R1407	ERJ3GEY0R00V	0 1/16W	[M]
R1408	ERJ3GEY0R00V	0 1/16W	[M]
R1409	ERJ3GEY0R00V	0 1/16W	[M]
R1410	ERJ3GEY0R00V	0 1/16W	[M]
R1411	ERJ3GEY0R00V	0 1/16W	[M]
R1412	ERJ3GEY0R00V	0 1/16W	[M]
R1701	D0GB151JA007	150 1/16W	[M]
R1702	D0GB272JA041	2.7K 1/16W	[M]
R1703	ERDS1FVJ4R7T	4.7 1/2W	[M]
R1704	ERDS1FVJ4R7T	4.7 1/2W	[M]
		CAPACITORS	
C100	F1H1H103A219	0.01 50V	[M]
C101	F1H1H101A230	100P 50V	[M]
C102	F1H1H101A230	100P 50V	[M]
C103	F1H1H101A230	100P 50V	[M]
C104	F1H1H102A219	1000P 50V	[M]
C105	ECJ1VB1H473K	0.047 50V	[M]
C106	ECJ1VB1H473K	0.047 50V	[M]
C107	F1H1H331A013	330P 50V	[M]
C108	F1H1H331A013	330P 50V	[M]
C109	F1H1H331A013	330P 50V	[M]
C110	F1H1H331A013	330P 50V	[M]
C111	F1H1H331A013	330P 50V	[M]
C112	F1H1H331A013	330P 50V	[M]
C113	F1H1H331A013	330P 50V	[M]
C114	F1H1H331A013	330P 50V	[M]
C115	F1H1H331A013	330P 50V	[M]
C116	F1H1H331A013	330P 50V	[M]
C117	F1H1H102A219	1000P 50V	[M]
C118	F1H1H102A219	1000P 50V	[M]
C119	F1H1H102A219	1000P 50V	[M]
C120	F1H1H102A219	1000P 50V	[M]
C121	ECA0JAM471XB	470 6.3V	[M]
C122	F1H1C104A008	0.1 16V	[M]
C123	ECA1HAK220XB	22 50V	[M]
C124	ECA1HAK220XB	22 50V	[M]
C125	ECA1HAK220XB	22 50V	[M]
C126	ECA1HAK220XB	22 50V	[M]
C127	ECA1HAK100XB	10 50V	[M]
C128	ECA1HAK100XB	10 50V	[M]
C129	ECA1HAK220XB	22 50V	[M]
C130	F1H1C104A008	0.1 16V	[M]
C131	F1H1H820A230	82P 50V	[M]
C201	F1H1E103A029	0.01 25V	[M]
C202	F1H1H332A013	3300P 50V	[M]
C203	F1H1H332A013	3300P 50V	[M]
C204	F1H1E103A029	0.01 25V	[M]
C301	F1H1H470A230	47P 50V	[M]
C302	F1H1H470A230	47P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C303	F1H1E223A002	0.022 25V	[M]
C304	ECA1CAK470XB	47 16V	[M]
C305	F1H1E223A002	0.022 25V	[M]
C306	ECA1CAK470XB	47 16V	[M]
C307	F1H1E223A002	0.022 25V	[M]
C308	ECA1CAK470XB	47 16V	[M]
C309	F1H1H470A230	47P 50V	[M]
C310	F1H1H470A230	47P 50V	[M]
C311	F1H1C104A008	0.1 16V	[M]
C312	F1H1C104A008	0.1 16V	[M]
C313	F1H1C104A008	0.1 16V	[M]
C314	F1H1C104A008	0.1 16V	[M]
C315	ECA0JAK101XB	100 6.3V	[M]
C316	ECA0JAK101XB	100 6.3V	[M]
C317	F1H1C104A008	0.1 16V	[M]
C318	F1H1C104A008	0.1 16V	[M]
C324	F1K1C1050005	1 16V	[M]
C325	F1K1C1050005	1 16V	[M]
C326	F1K1C1050005	1 16V	[M]
C327	F1K1C1050005	1 16V	[M]
C328	F1K1C1050005	1 16V	[M]
C329	F1K1C1050005	1 16V	[M]
C330	F1H1H104A783	0.1 50V	[M]
C331	ECA0JAK101XB	100 6.3V	[M]
C332	F1H1H104A783	0.1 50V	[M]
C333	ECA0JAK101XB	100 6.3V	[M]
C335	F1H1H104A783	0.1 50V	[M]
C351	F1H1H470A230	47P 50V	[M]
C352	F1H1H470A230	47P 50V	[M]
C353	ECA1CAK470XB	47 16V	[M]
C354	ECA1CAK470XB	47 16V	[M]
C355	ECA1CAK470XB	47 16V	[M]
C356	ECA1CAK470XB	47 16V	[M]
C357	F1H1C104A008	0.1 16V	[M]
C358	F1H1C104A008	0.1 16V	[M]
C359	ECA0JAK101XB	100 6.3V	[M]
C360	ECA0JAK101XB	100 6.3V	[M]
C361	F1H1H103A219	0.01 50V	[M]
C362	ECA0JAK101XB	100 6.3V	[M]
C363	ECA0JAK101XB	100 6.3V	[M]
C364	F1H1H103A219	0.01 50V	[M]
C365	F1H1H104A783	0.1 50V	[M]
C366	F1H1H104A783	0.1 50V	[M]
C367	F1H1H104A783	0.1 50V	[M]
C368	F1H1H470A230	47P 50V	[M]
C401	F1H1H101A230	100P 50V	[M]
C402	F1H1H101A230	100P 50V	[M]
C403	F1H1H101A230	100P 50V	[M]
C404	F1H1H101A230	100P 50V	[M]
C405	F1H1H101A230	100P 50V	[M]
C406	F1H1H101A230	100P 50V	[M]
C407	F1H1H101A230	100P 50V	[M]
C408	F1H1H101A230	100P 50V	[M]
C409	F1H1H101A230	100P 50V	[M]
C410	F1H1H101A230	100P 50V	[M]
C411	F1H1H101A230	100P 50V	[M]
C412	F1H1H101A230	100P 50V	[M]
C413	F1H1H101A230	100P 50V	[M]
C414	F1H1H101A230	100P 50V	[M]
C419	F1H1H101A230	100P 50V	[M]
C420	F1H1H101A230	100P 50V	[M]
C421	F1H1H101A230	100P 50V	[M]
C422	F1H1H101A230	100P 50V	[M]
C423	F1H1H101A230	100P 50V	[M]
C424	F1H1H101A230	100P 50V	[M]
C425	F1H1H101A230	100P 50V	[M]
C426	F1H1H101A230	100P 50V	[M]
C427	F1H1H101A230	100P 50V	[M]
C428	F1H1H101A230	100P 50V	[M]
C429	F1H1H101A230	100P 50V	[M]
C430	F1H1H101A230	100P 50V	[M]
C431	F1H1H101A230	100P 50V	[M]
C432	F1H1H101A230	100P 50V	[M]
C433	ECJ1VC1H330J	33P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C434	ECA1CAK100XB	10 16V	[M]
C435	F1H1H101A230	100P 50V	[M]
C440	ECA1HAK2R2XB	2.2 50V	[M]
C441	ECA1HAK2R2XB	2.2 50V	[M]
C442	ECA1HAK2R2XB	2.2 50V	[M]
C443	ECA1HAK2R2XB	2.2 50V	[M]
C444	ECA1HAK2R2XB	2.2 50V	[M]
C445	ECA1HAK2R2XB	2.2 50V	[M]
C446	ECA1HAK2R2XB	2.2 50V	[M]
C447	ECA1HAK2R2XB	2.2 50V	[M]
C450	ECA1HAK2R2XB	2.2 50V	[M]
C451	ECA1HAK2R2XB	2.2 50V	[M]
C452	ECA1HAK2R2XB	2.2 50V	[M]
C453	ECA1HAK2R2XB	2.2 50V	[M]
C454	ECA1HAK2R2XB	2.2 50V	[M]
C455	ECA1CAK101XB	100 16V	[M]
C456	ECA1HAK2R2XB	2.2 50V	[M]
C457	F1H1C104A008	0.1 16V	[M]
C458	ECA1CAK101XB	100 16V	[M]
C460	F1H1C104A008	0.1 16V	[M]
C462	ECA1HAK010XB	1 50V	[M]
C463	ECJ1VC1H330J	33P 50V	[M]
C464	ECA1HAK4R7XB	4.7 50V	[M]
C465	F1H1H101A230	100P 50V	[M]
C466	ECA1HAK100XB	10 50V	[M]
C468	ECA1HAK4R7XB	4.7 50V	[M]
C470	F1H1C104A008	0.1 16V	[M]
C471	ECA1HAK4R7XB	4.7 50V	[M]
C472	ECA1CAK101XB	100 16V	[M]
C473	F1H1C104A008	0.1 16V	[M]
C474	ECA1HAK100XB	10 50V	[M]
C475	ECA1HAK100XB	10 50V	[M]
C476	ECA1HAK4R7XB	4.7 50V	[M]
C477	ECA1HAK4R7XB	4.7 50V	[M]
C478	ECA1HAK100XB	10 50V	[M]
C479	ECA1HAK100XB	10 50V	[M]
C480	ECA1HAK4R7XB	4.7 50V	[M]
C481	ECA1HAK4R7XB	4.7 50V	[M]
C482	ECA1HAK4R7XB	4.7 50V	[M]
C485	F1H1H101A230	100P 50V	[M]
C486	F1H1H470A230	47P 50V	[M]
C487	F1H1E103A029	0.01 25V	[M]
C488	F1H1H101A230	100P 50V	[M]
C489	F1H1H470A230	47P 50V	[M]
C502	F1H1A105A025	1 10V	[M]
C503	F1H1A105A025	1 10V	[M]
C506	F1H1E103A029	0.01 25V	[M]
C507	F1H1H101A230	100P 50V	[M]
C508	ECJ1VB1H681K	680P 50V	[M]
C509	ECJ1VC1H330J	33P 50V	[M]
C510	F1H1H101A230	100P 50V	[M]
C511	ECA1HAK010XB	1 50V	[M]
C512	ECA1CAK100XB	10 16V	[M]
C513	ECA1CAK100XB	10 16V	[M]
C514	F1H1H470A230	47P 50V	[M]
C515	F1H1H101A230	100P 50V	[M]
C516	F1H1H470A230	47P 50V	[M]
C517	F1H1H101A230	100P 50V	[M]
C518	ECA1CAK100XB	10 16V	[M]
C519	F1H1E103A029	0.01 25V	[M]
C520	F1H1H102A219	1000P 50V	[M]
C521	F1H1H102A219	1000P 50V	[M]
C522	ECA1CAK100XB	10 16V	[M]
C523	F1H1C104A008	0.1 16V	[M]
C524	F1H1C104A008	0.1 16V	[M]
C525	ECA1CAK100XB	10 16V	[M]
C526	ECA1CAK100XB	10 16V	[M]
C527	ECA1CAK100XB	10 16V	[M]
C528	ECA1CAK100XB	10 16V	[M]
C530	F1H1C104A008	0.1 16V	[M]
C531	ECJ1VB1A224K	0.22 10V	[M]
C532	F1H1A224A025	0.22 10V	[M]
C533	F1H1A224A025	0.22 10V	[M]
C534	F1H1A334A036	0.33 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C535	ECA1HAK100XB	10 50V	[M]
C536	ECJ1VB1A224K	0.22 10V	[M]
C537	ECJ1VC1H330J	33P 50V	[M]
C538	ECJ1VC1H330J	33P 50V	[M]
C539	ECJ1VC1H330J	33P 50V	[M]
C540	F1H1A154A001	0.15 10V	[M]
C541	F1H1A224A025	0.22 10V	[M]
C542	ECJ1VB1C823K	0.082 16V	[M]
C543	ECJ1VB1C823K	0.082 16V	[M]
C548	F1H1H102A219	1000P 50V	[M]
C549	F1H1H102A219	1000P 50V	[M]
C701	ECA1HAK4R7XB	4.7 50V	[M]
C702	ECA1HAK100XB	10 50V	[M]
C703	ECA1HAK100XB	10 50V	[M]
C704	F1H1H104A783	0.1 50V	[M]
C705	F1H1H104A783	0.1 50V	[M]
C706	ECA1HAKR47XB	0.47 50V	[M]
C707	ECA1HAKR47XB	0.47 50V	[M]
C708	ECA1HAKR33XB	0.33 50V	[M]
C709	ECJ1VB1H223K	0.022 50V	[M]
C710	ECJ1VC1H221J	220P 50V	[M]
C711	ECJ1VB1H473K	0.047 50V	[M]
C712	ECJ1VB1C683K	0.068 16V	[M]
C750	ECA1EAM472XE	4700 25V	[M]
C751	ECQE2104KF3	0.1 250V	[M]
C752	ECA1HAM101XB	100 50V	[M]
C753	F1H1H103A219	0.01 50V	[M]
C754	ECA1CAM102XB	1000 16V	[M]
C755	ECA1EAK330XB	33 25V	[M]
C756	ECA1HAM101XB	100 50V	[M]
C757	ECA1CAK101XB	100 16V	[M]
C758	F1H1E103A029	0.01 25V	[M]
C759	F1H1E103A029	0.01 25V	[M]
C760	ECA1HAM101XB	100 50V	[M]
C761	ECA1JM101B	100 63V	[M]
C762	ECA1CAK101XB	100 16V	[M]
C763	ECA1CAK101XB	100 16V	[M]
C764	F1H1E103A029	0.01 25V	[M]
C765	F1H1E103A029	0.01 25V	[M]
C766	ECA1EAK330XB	33 25V	[M]
C767	ECA1CAM102XB	1000 16V	[M]
C768	ECA1JM101B	100 63V	[M]
C769	ECEA1HKN4R7B	4.7 50V	[M]
C770	ECA1CAM471XB	470 16V	[M]
C771	F1H1H103A219	0.01 50V	[M]
C772	ECA1CAK101XB	100 16V	[M]
C773	ECA1CAK470XB	47 16V	[M]
C774	F1H1C104A008	0.1 16V	[M]
C901	ECA0JAM102XB	1000 6.3V	[M]
C902	F1H1C104A008	0.1 16V	[M]
C903	F1H1E103A029	0.01 25V	[M]
C904	ECA0JAM102XB	1000 6.3V	[M]
C905	ECA1HAK010XB	1 50V	[M]
C908	F1H1E103A029	0.01 25V	[M]
C915	ECA0JAK101XB	100 6.3V	[M]
C916	F1H1H103A219	0.01 50V	[M]
C917	F1H1H103A219	0.01 50V	[M]
C921	ECA1CAK101XB	100 16V	[M]
C922	ECA1CAK101XB	100 16V	[M]
C923	F1H1C104A008	0.1 16V	[M]
C924	F1H1C104A008	0.1 16V	[M]
C925	F1H1C104A008	0.1 16V	[M]
C928	ECA1CAK100XB	10 16V	[M]
C929	ECA1CAK100XB	10 16V	[M]
C930	ECA1CAK100XB	10 16V	[M]
C931	F1H1H103A219	0.01 50V	[M]
C933	F1H1C104A008	0.1 16V	[M]
C935	ECA1HAK010XB	1 50V	[M]
C957	F1H1H102A219	1000P 50V	[M]
C958	F1H1H102A219	1000P 50V	[M]
C959	F1H1H102A219	1000P 50V	[M]
C960	F1H1H102A219	1000P 50V	[M]
C981	ECJ1VC1H330J	33P 50V	[M]
C982	ECJ1VC1H330J	33P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1001	ECA1HAK010XB	1 50V	[M]
C1002	F1H1C104A008	0.1 16V	[M]
C1003	ECA0JAK101XB	100 6.3V	[M]
C1004	ECA1HAK010XB	1 50V	[M]
C1005	ECA1HAK010XB	1 50V	[M]
C1006	F1H1C104A008	0.1 16V	[M]
C1007	F1H1C104A008	0.1 16V	[M]
C1008	ECA1HAK2R2XB	2.2 50V	[M]
C1009	F1H1H471A219	470P 50V	[M]
C1010	F1H1H103A219	0.01 50V	[M]
C1011	ECA0JAK101XB	100 6.3V	[M]
C1012	F1H1C104A008	0.1 16V	[M]
C1013	F1H1C104A008	0.1 16V	[M]
C1015	F1H1H101A230	100P 50V	[M]
C1016	F1H1H101A230	100P 50V	[M]
C1017	F1H1H101A230	100P 50V	[M]
C1018	F1H1H102A219	1000P 50V	[M]
C1019	F1H1H102A219	1000P 50V	[M]
C1020	F1H1C104A008	0.1 16V	[M]
C1021	F1H1C104A008	0.1 16V	[M]
C1022	F1H1C104A008	0.1 16V	[M]
C1023	F1H1H220A230	22P 50V	[M]
C1024	ECA0JAK101XB	100 6.3V	[M]
C1025	F1H1H220A230	22P 50V	[M]
C1026	F1H1C104A008	0.1 16V	[M]
C1027	F1H1H101A230	100P 50V	[M]
C1101	ECA1CAK100XB	10 16V	[M]
C1102	F1H1C104A008	0.1 16V	[M]
C1103	F1H1C104A008	0.1 16V	[M]
C1104	F1H1C104A008	0.1 16V	[M]
C1105	ECA1CAK100XB	10 16V	[M]
C1106	ECJ1VB1H682K	6800P 50V	[M]
C1107	F1H1C104A008	0.1 16V	[M]
C1108	ECJ1VC1H102J	1000P 50V	[M]
C1110	ECA1CAK100XB	10 16V	[M]
C1111	F1H1C104A008	0.1 16V	[M]
C1117	F1H1H272A013	2700P 50V	[M]
C1118	F1H1H272A013	2700P 50V	[M]
C1119	F1H1C104A008	0.1 16V	[M]
C1120	F1H1C104A008	0.1 16V	[M]
C1121	F1H1C104A008	0.1 16V	[M]
C1122	ECA1CAK101XB	100 16V	[M]
C1123	ECA1HAK4R7XB	4.7 50V	[M]
C1124	ECA1CAK100XB	10 16V	[M]
C1125	F1H1H101A230	100P 50V	[M]
C1126	F1H1H103A219	0.01 50V	[M]
C1127	ECJ1VB1H561K	560P 50V	[M]
C1128	ECJ1VB1H561K	560P 50V	[M]
C1129	ECJ1VB1H561K	560P 50V	[M]
C1130	ECJ1VB1H561K	560P 50V	[M]
C1131	ECA1CAK101XB	100 16V	[M]
C1132	ECA1CAK101XB	100 16V	[M]
C1201	ECJ1VB1H182K	1800P 50V	[M]
C1202	ECJ1VB1H562K	5600P 50V	[M]
C1203	ECJ1VB1H182K	1800P 50V	[M]
C1204	ECJ1VB1H562K	5600P 50V	[M]
C1205	ECJ1VB1H182K	1800P 50V	[M]
C1206	ECJ1VB1H562K	5600P 50V	[M]
C1207	ECJ1VB1H562K	5600P 50V	[M]
C1208	ECJ1VB1H182K	1800P 50V	[M]
C1209	ECJ1VB1H562K	5600P 50V	[M]
C1210	ECJ1VB1H182K	1800P 50V	[M]
C1211	ECJ1VB1H562K	5600P 50V	[M]
C1212	ECJ1VB1H182K	1800P 50V	[M]
C1213	ECA1CAK220XB	22 16V	[M]
C1214	ECA1CAK220XB	22 16V	[M]
C1215	ECA1CAK220XB	22 16V	[M]
C1216	ECJ1VB1H122K	1200P 50V	[M]
C1217	ECA1CAK220XB	22 16V	[M]
C1218	ECJ1VB1H122K	1200P 50V	[M]
C1219	ECA1CAK220XB	22 16V	[M]
C1220	ECJ1VB1H122K	1200P 50V	[M]
C1221	ECA1CAK220XB	22 16V	[M]
C1222	ECJ1VB1H122K	1200P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1223	ECJ1VB1H122K	1200P 50V	[M]
C1224	ECJ1VB1H122K	1200P 50V	[M]
C1225	F1H1H391A013	390P 50V	[M]
C1226	F1H1H391A013	390P 50V	[M]
C1227	F1H1H391A013	390P 50V	[M]
C1228	F1H1H391A013	390P 50V	[M]
C1229	F1H1H391A013	390P 50V	[M]
C1230	F1H1H391A013	390P 50V	[M]
C1231	ECA1CAK100XB	10 16V	[M]
C1232	ECA1CAK100XB	10 16V	[M]
C1233	ECA1CAK100XB	10 16V	[M]
C1234	ECA1CAK100XB	10 16V	[M]
C1235	ECA1CAK100XB	10 16V	[M]
C1236	ECA1CAK100XB	10 16V	[M]
C1237	F1H1H103A219	0.01 50V	[M]
C1238	F1H1H103A219	0.01 50V	[M]
C1239	F1H1H103A219	0.01 50V	[M]
C1240	F1H1H103A219	0.01 50V	[M]
C1241	F1H1H103A219	0.01 50V	[M]
C1242	F1H1H103A219	0.01 50V	[M]
C1243	F1H1H101A230	100P 50V	[M]

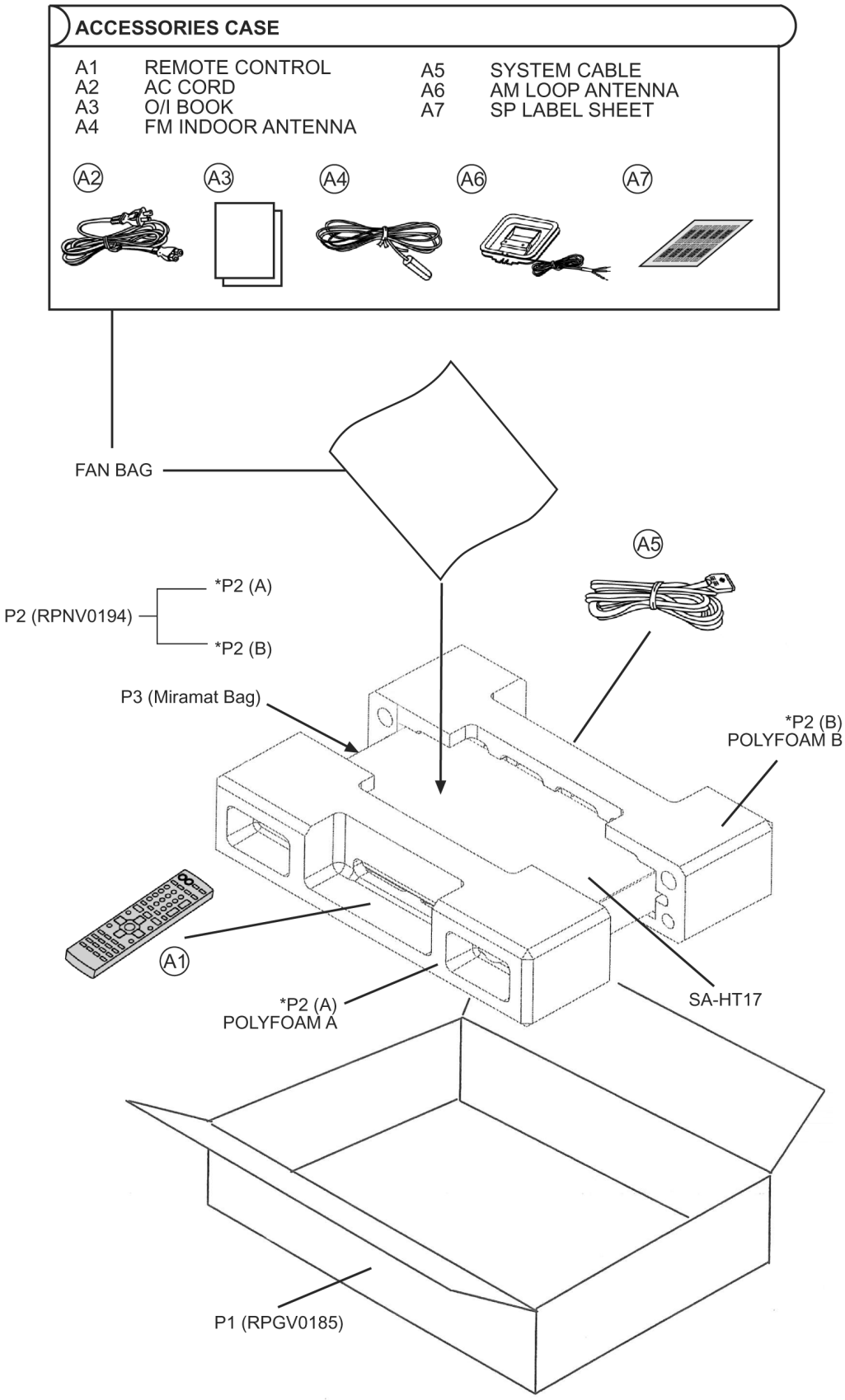
Ref. No.	Part No.	Part Name & Description	Remarks
C1245	ECA1EAK470XB	47 25V	[M]
C1246	ECA1EAK470XB	47 25V	[M]
C1301	F1H1H103A219	0.01 50V	[M]
C1302	F1H1H104A783	0.1 50V	[M]
C1303	F1H1H103A219	0.01 50V	[M]
C1304	F1H1H104A783	0.1 50V	[M]
C1305	F1H1C104A008	0.1 16V	[M]
C1306	F1H1C104A008	0.1 16V	[M]
C1307	F1H1C104A008	0.1 16V	[M]
C1308	ECA0JAK101XB	100 6.3V	[M]
C1309	F1H1H103A219	0.01 50V	[M]
C1310	F1H1C104A008	0.1 16V	[M]
C1311	F1H1C104A008	0.1 16V	[M]
C1412	F1H1H101A230	100P 50V	[M]
C1701	ECA1CAK220XB	22 16V	[M]
C1702	F1H1H391A013	390P 50V	[M]
C1703	ECA1CAK100XB	10 16V	[M]
C1704	F1H1H103A219	0.01 50V	[M]
C1705	ECA1CAK101XB	100 16V	[M]
C1706	ECA1AM332E	3300 10V	[M]

18.3. Packing Materials & Accessories Parts List

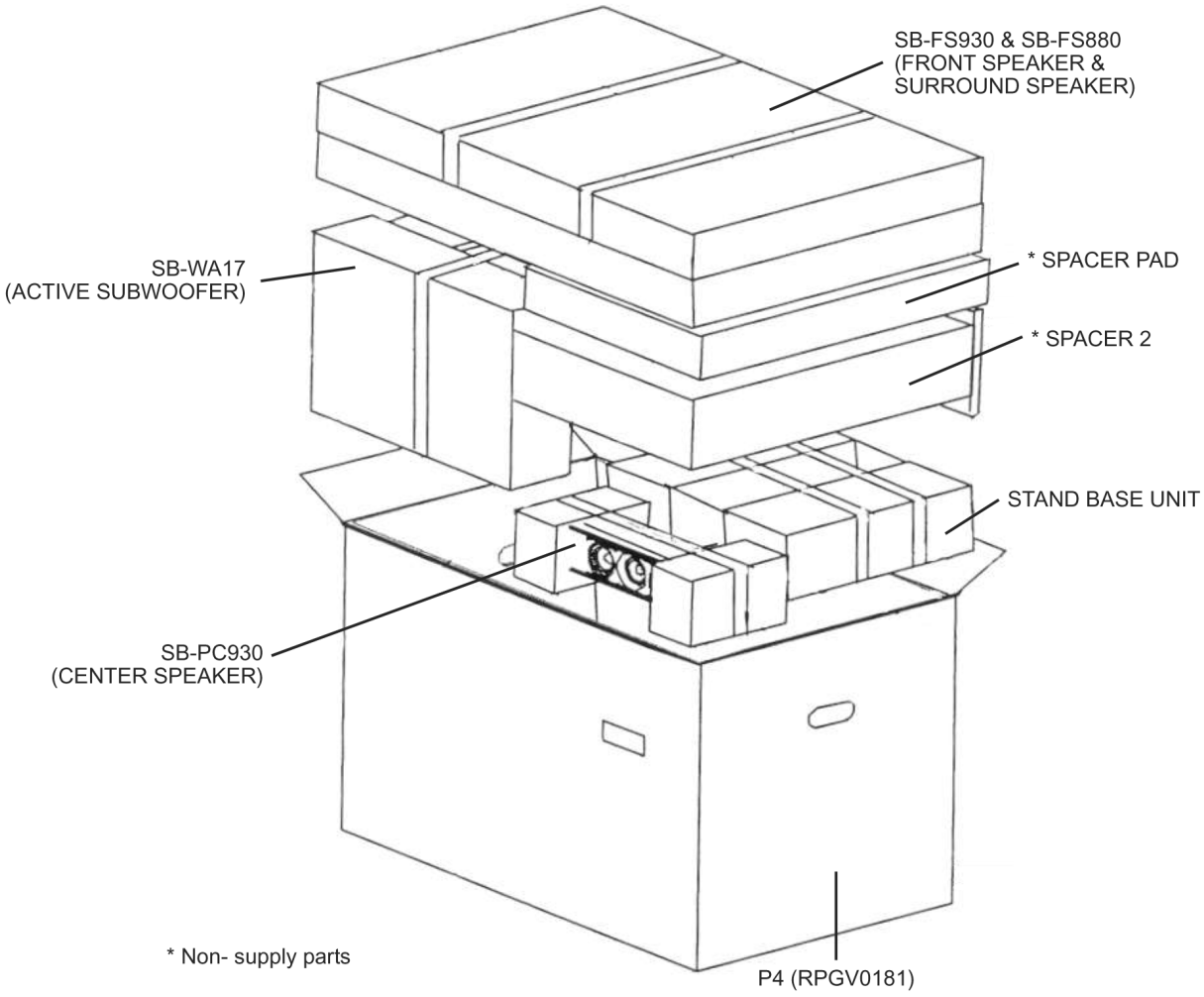
Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGV0185	PACKING CASE (MAIN UNIT)	[M]
P2	RPNV0194	POLYFOAM	[M]
P3	RPHV0001-1	MIRAMAT SHEET	[M]
P4	RPGV0181	OUTER PACKING CASE	[M]
		ACCESSORIES	
A1	EUR7722KK0	REMOTE CONTROL	[M]
A1-1	UR76EC3103A	R/C BATTERY COVER	[M]
A2	K2CB2CB00006	AC CORD	[M] ⚠
A3	RQT7949-P	O/I BOOK (En)	[M]
A3	RQT7950-C	O/I BOOK (Cf)	[M]
A4	RSA0007-L	FM INDOOR ANTENNA	[M]
A5	K1HA25HA0001	SYSTEM CABLE	[M]
A6	N1DAAAA00002	AM LOOP ANTENNA	[M]
A7	RQCA1029	SP LABEL SHEET	[M]

18.4. Packaging

(SA-HT17)



(SC-HT17)


SB-FS930 & SB-FS880
(FRONT SPEAKER &
SURROUND SPEAKER)
SB-WA17
(ACTIVE SUBWOOFER)
* SPACER PAD
* SPACER 2
STAND BASE UNIT
SB-PC930
(CENTER SPEAKER)
* Non- supply parts
P4 (RPGV0181)